

## N O T I C E

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CERTAIN PORTIONS ARE ILLEGIBLE, IT IS BEING RELEASED  
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INFORMATION AS POSSIBLE

CR-159819  
PWA-5550-50



**MODEL AERODYNAMIC TEST RESULTS  
FOR TWO VARIABLE CYCLE ENGINE  
COANNULAR EXHAUST SYSTEMS  
AT SIMULATED TAKEOFF  
AND CRUISE CONDITIONS**

**COMPREHENSIVE DATA REPORT  
VOLUME III  
GRAPHICAL DATA  
BOOK 2**

**By D.P. Nelson**

**Commercial Products Division  
Pratt & Whitney Aircraft Group  
United Technologies Corporation**

(NASA-CR-159819-Vol-3-BK-2) MODEL  
AERODYNAMIC TEST RESULTS FOR TWO VARIABLE  
CYCLE ENGINE COANNULAR EXHAUST SYSTEMS AT  
SIMULATED TAKEOFF AND CRUISE CONDITIONS.  
COMPREHENSIVE (Pratt and Whitney Aircraft



Unclass  
G3/07 41402

**Prepared for  
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
Lewis Research Center  
Under  
Contract NAS3-20061**

**CONFIGURATION C<sub>3</sub>**

**SHORT FLAP NOZZLE**

**TAKEOFF**

ROG. 1348 - 1379

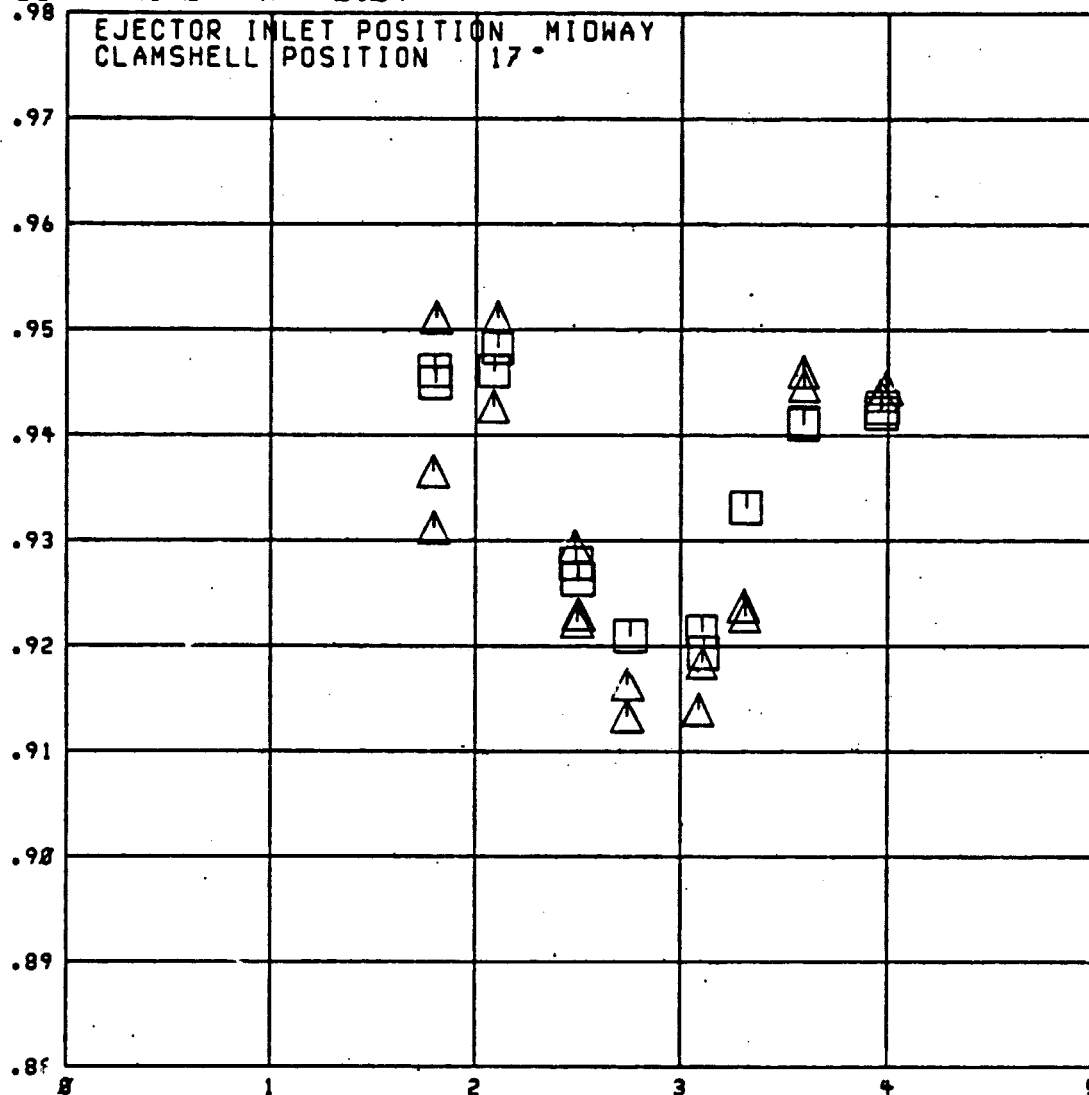
C3  
TAKEOFF

RUN 22

$M_0 = 0$   $M_e = 0.84$

$P_{tr}/P_{te} = \square = 1.46$   
 $\Delta = 1.78$

NOZZLE GROSS THRUST COEFFICIENT,  $CFPI$



FAN NOZZLE PRESSURE RATIO,  $PTF/PO$



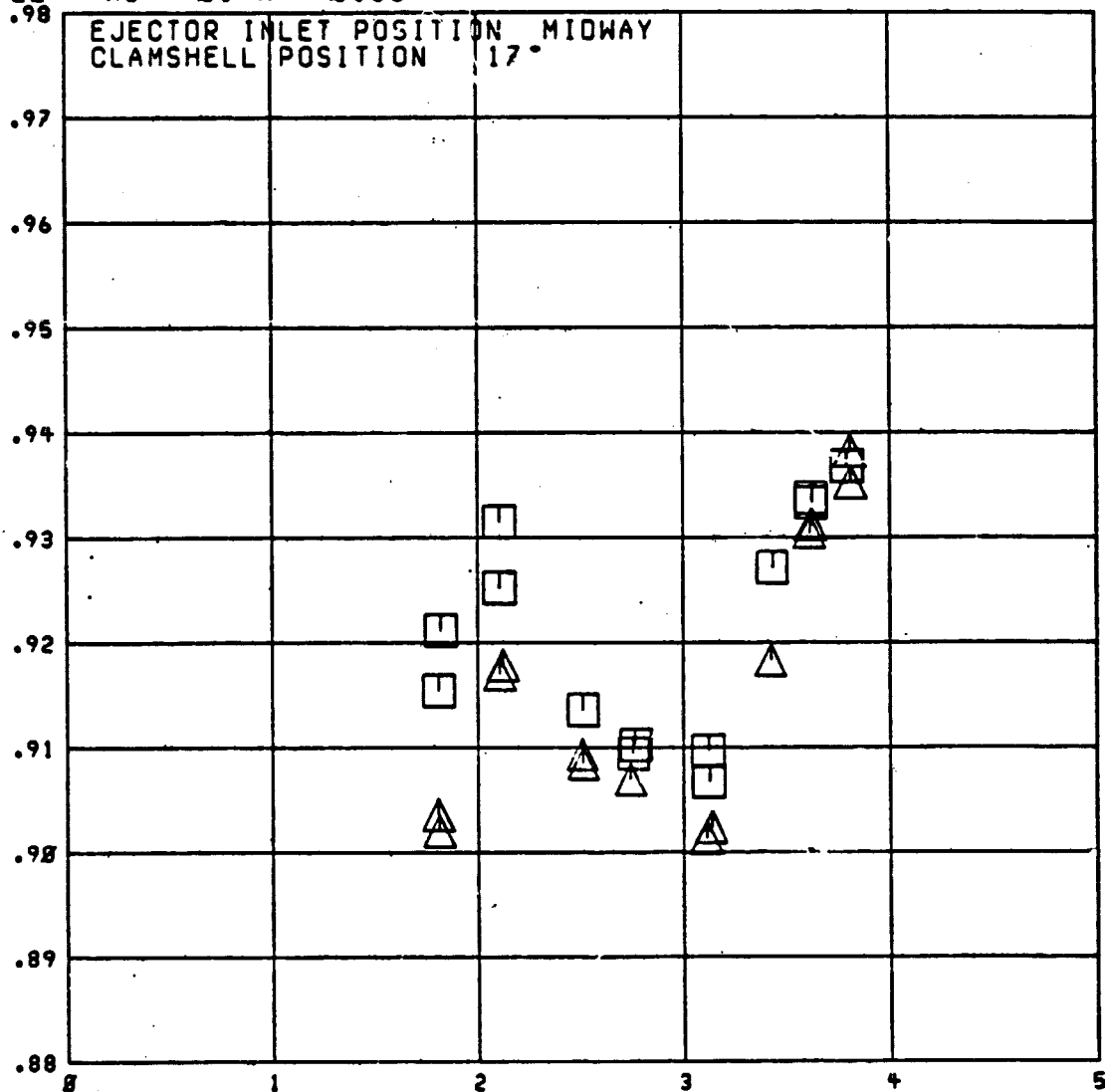
R04, 1380-1407

C3  
TAKEOFF

$P_{t0}/P_{t2} = \square = 1.46$   
 $\Delta = 1.78$

RUN 22  $M_0 = 8. M_\infty = 8.36$

NOZZLE GROSS THRUST COEFFICIENT, CFP1



FAN NOZZLE PRESSURE RATIO, PTF/PO

RDG. 1348-1379

C3

TAKEOFF

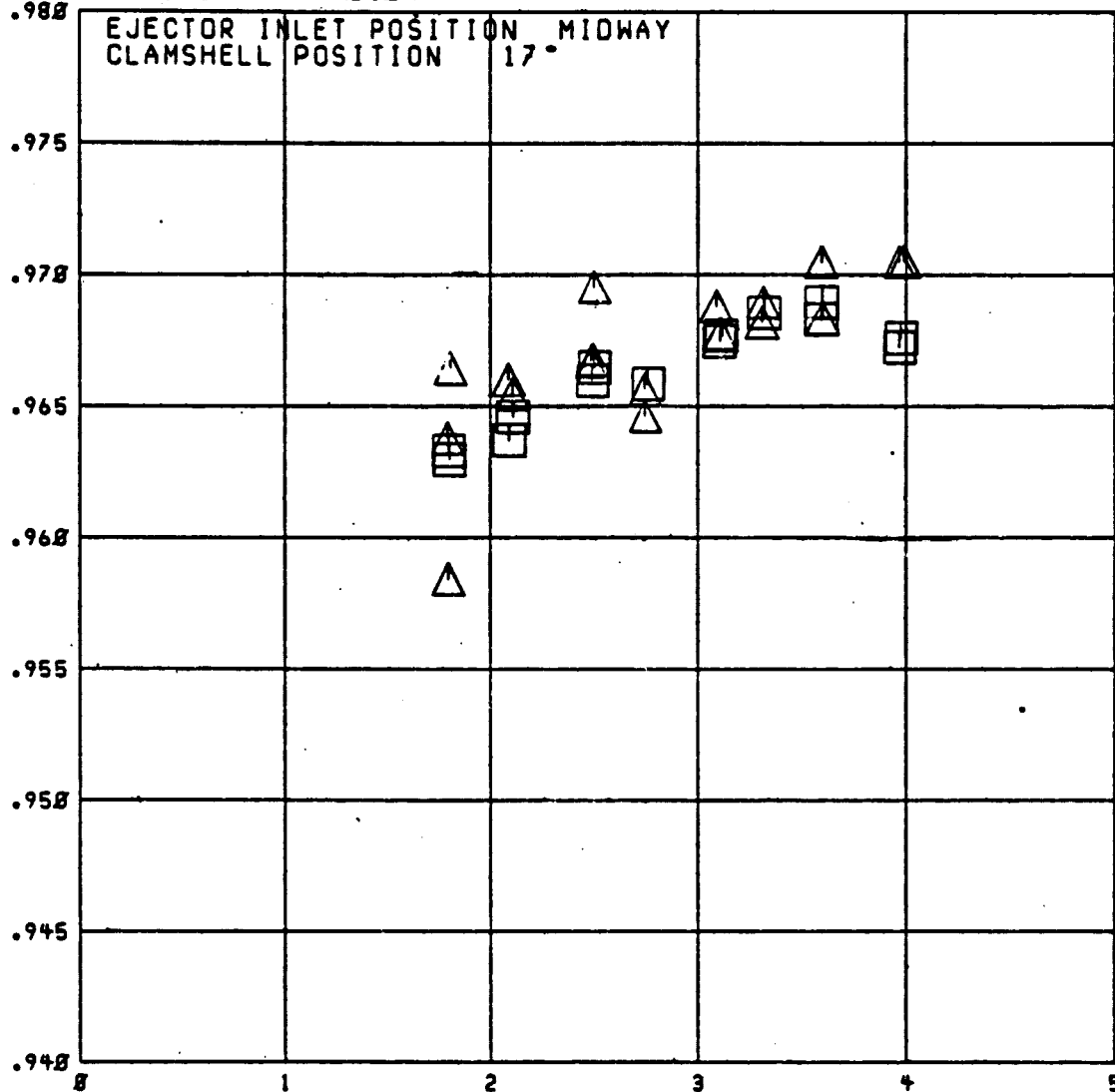
RUN 22

MO=8

Me = 8.84

$P_{tr}/P_{tp} = \square = 1.46$   
 $\Delta = 1.78$

FAN-NOZZLE FLOW COEFFICIENT, CDF



FAN NOZZLE PRESSURE RATIO, PTF/PO

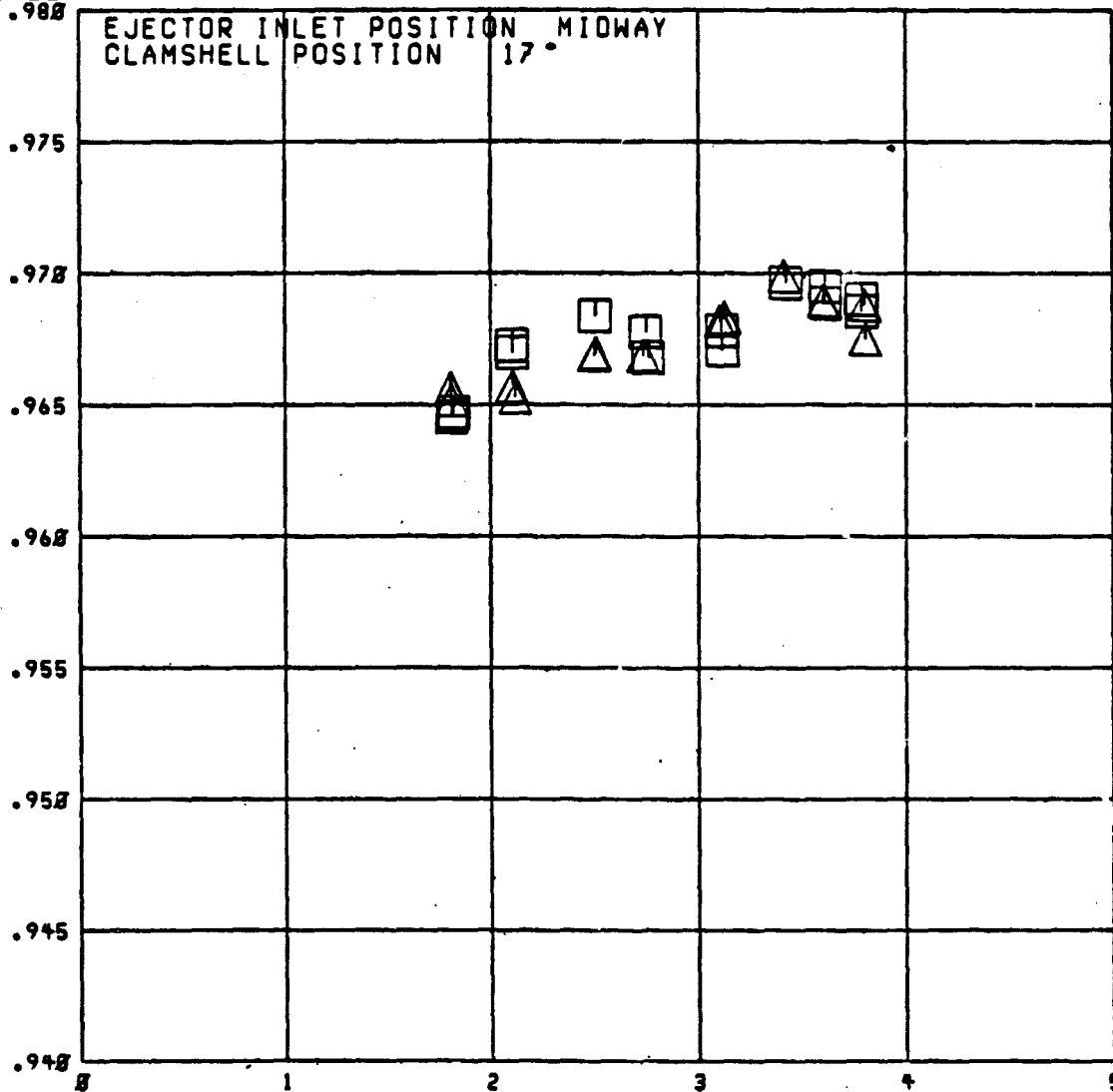
Rdg 1380-1407

C3  
TAKEOFF

$P_{t0}/P_{t\infty} = \square = 1.46$   
 $\Delta = 1.78$

RUN 22  $M_0 = 8. M_\infty = 8.36$

FAN-NOZZLE FLOW COEFFICIENT, CDF



FAN NOZZLE PRESSURE RATIO, PTF/PO

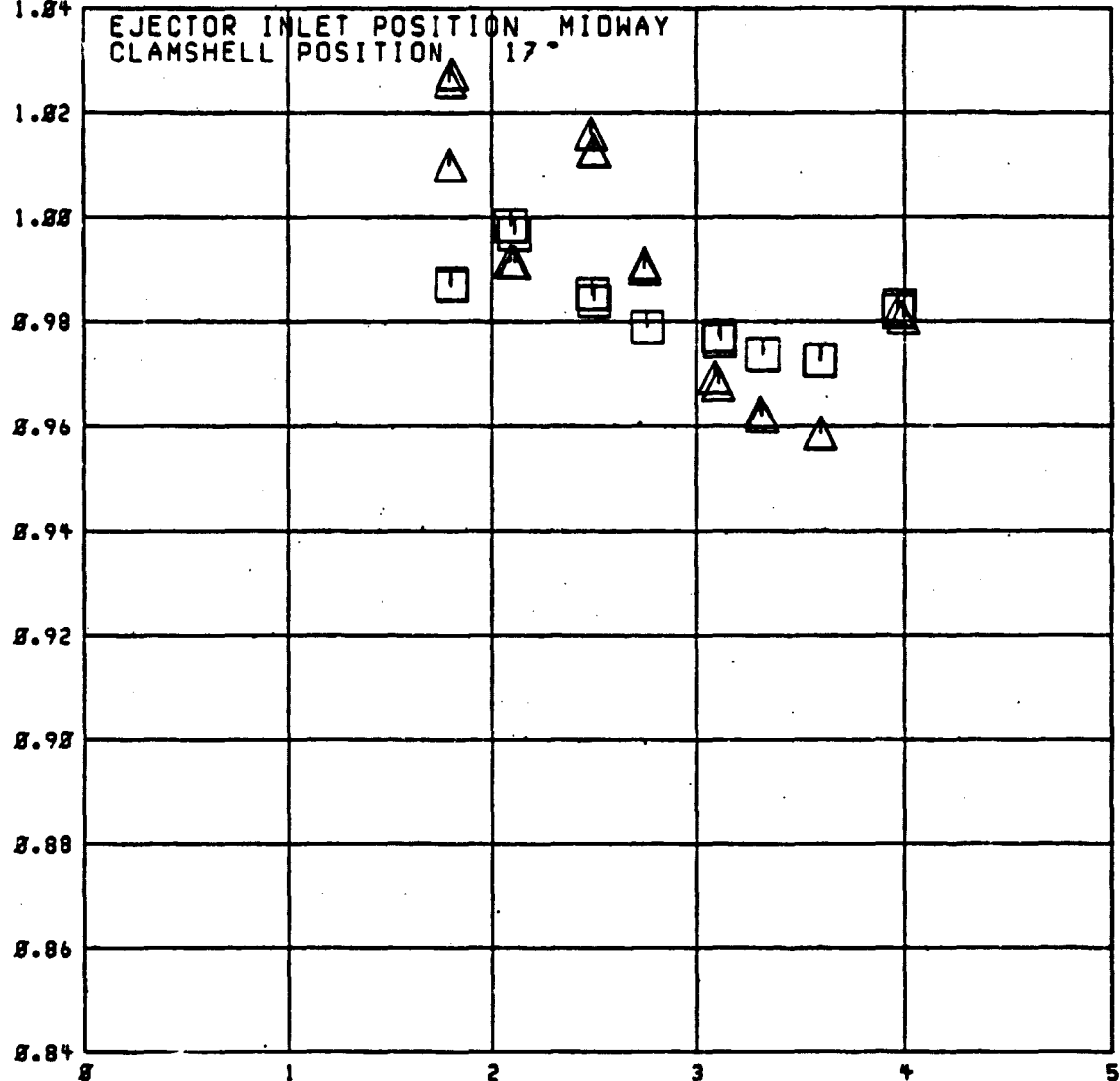
R091348-1379

C3  
TAKEOFF

$P_{TC}/P_{TP} = \square = 1.46$   
 $\Delta = 1.78$

RUN 22  $M_0 = 0$   $M_e = 0.84$

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP



FAN NOZZLE PRESSURE RATIO,  $P_{TF}/P_0$

RDG. 1380-1407

C3  
TAKEOFF

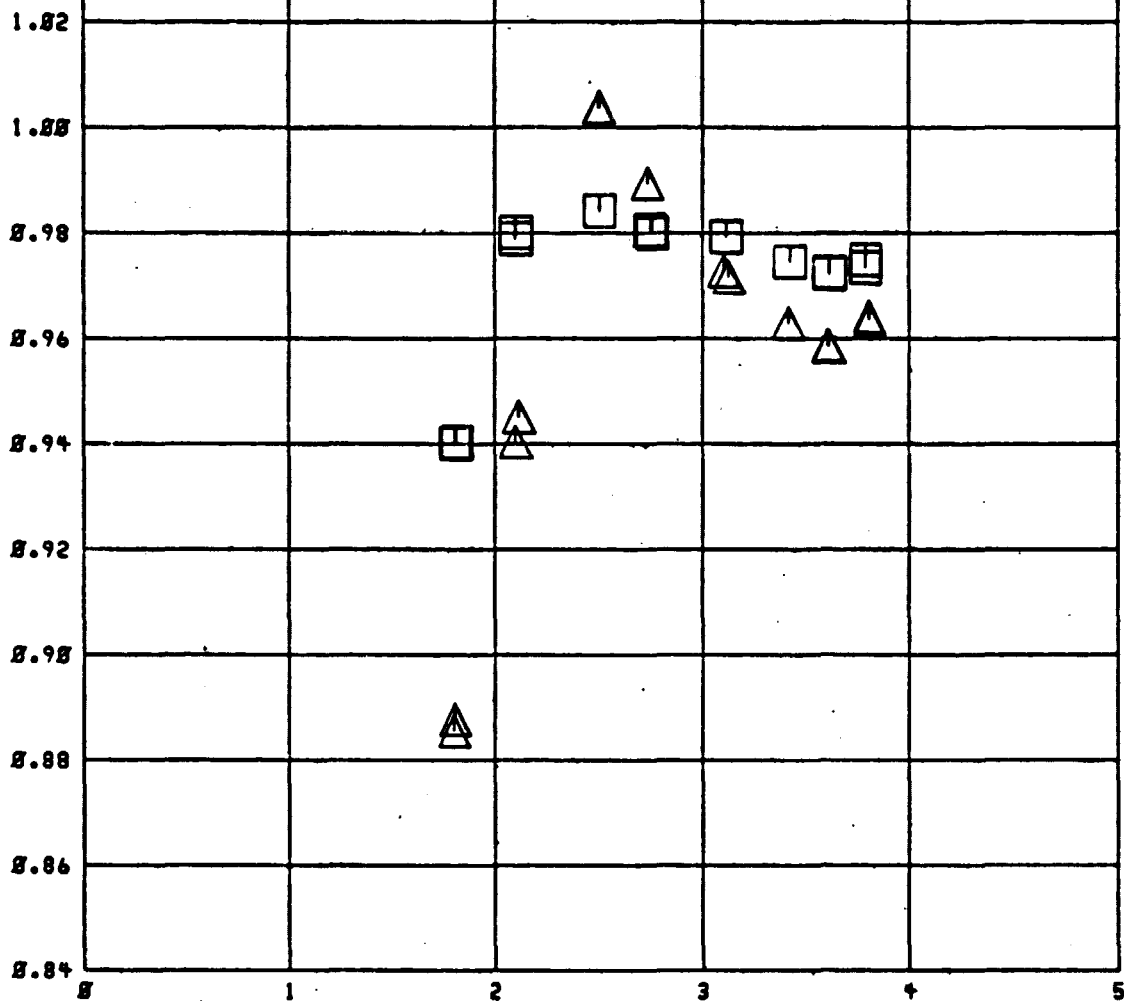
RUN 22  
1.84

$M_0 = 0. M_\infty = 0.36$

$P_{t0}/P_{t\infty} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP

EJECTOR INLET POSITION MIDWAY  
CLAMSHELL POSITION 17°



FAN NOZZLE PRESSURE RATIO,  $P_{TF}/P_0$

RUN 22

RDG=1398

C3

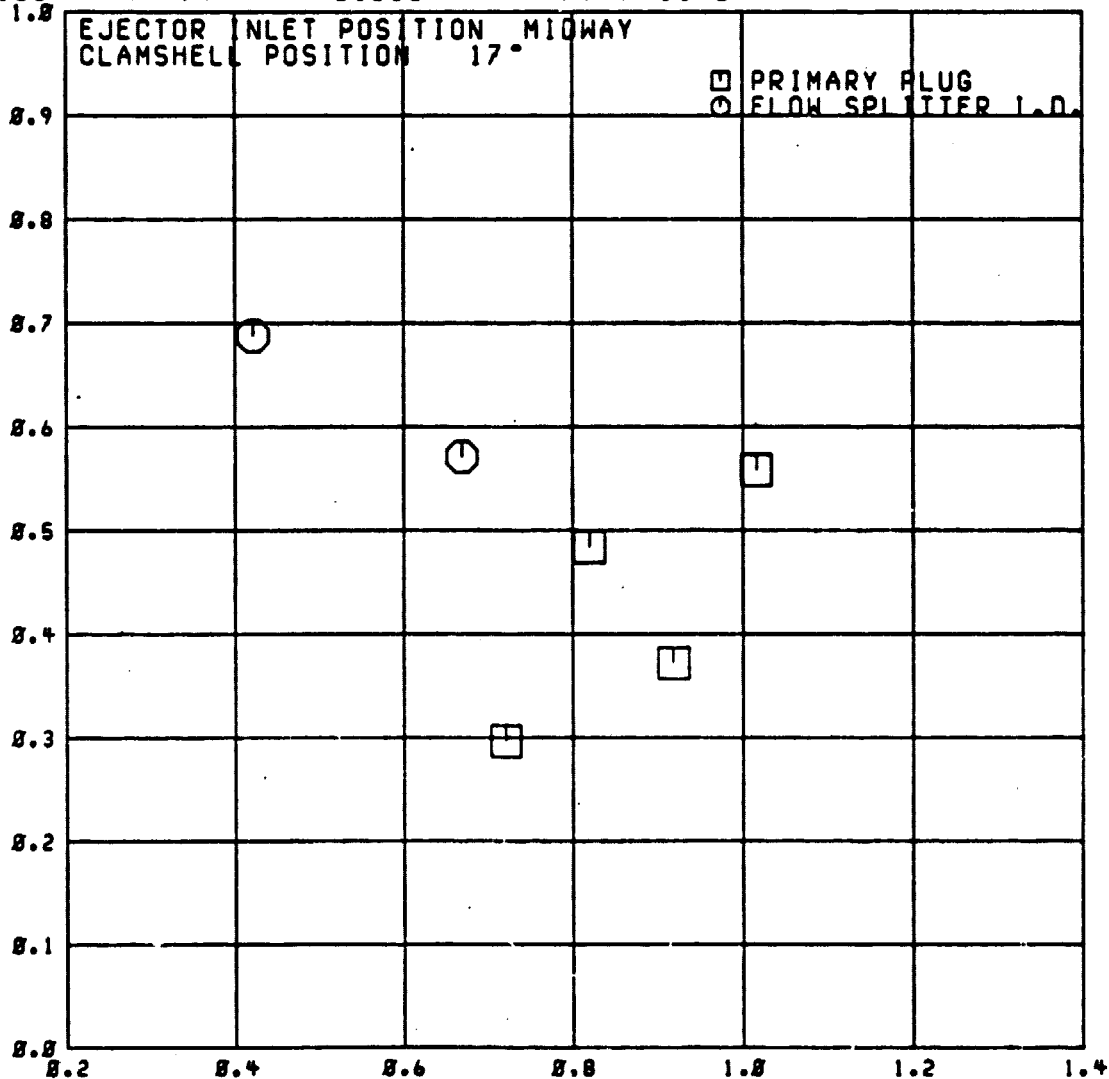
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 8.36$

$P_{tr}/P_0 = 3.618$

$P_{tr}/P_{tr} = 1.45$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

RUN 22

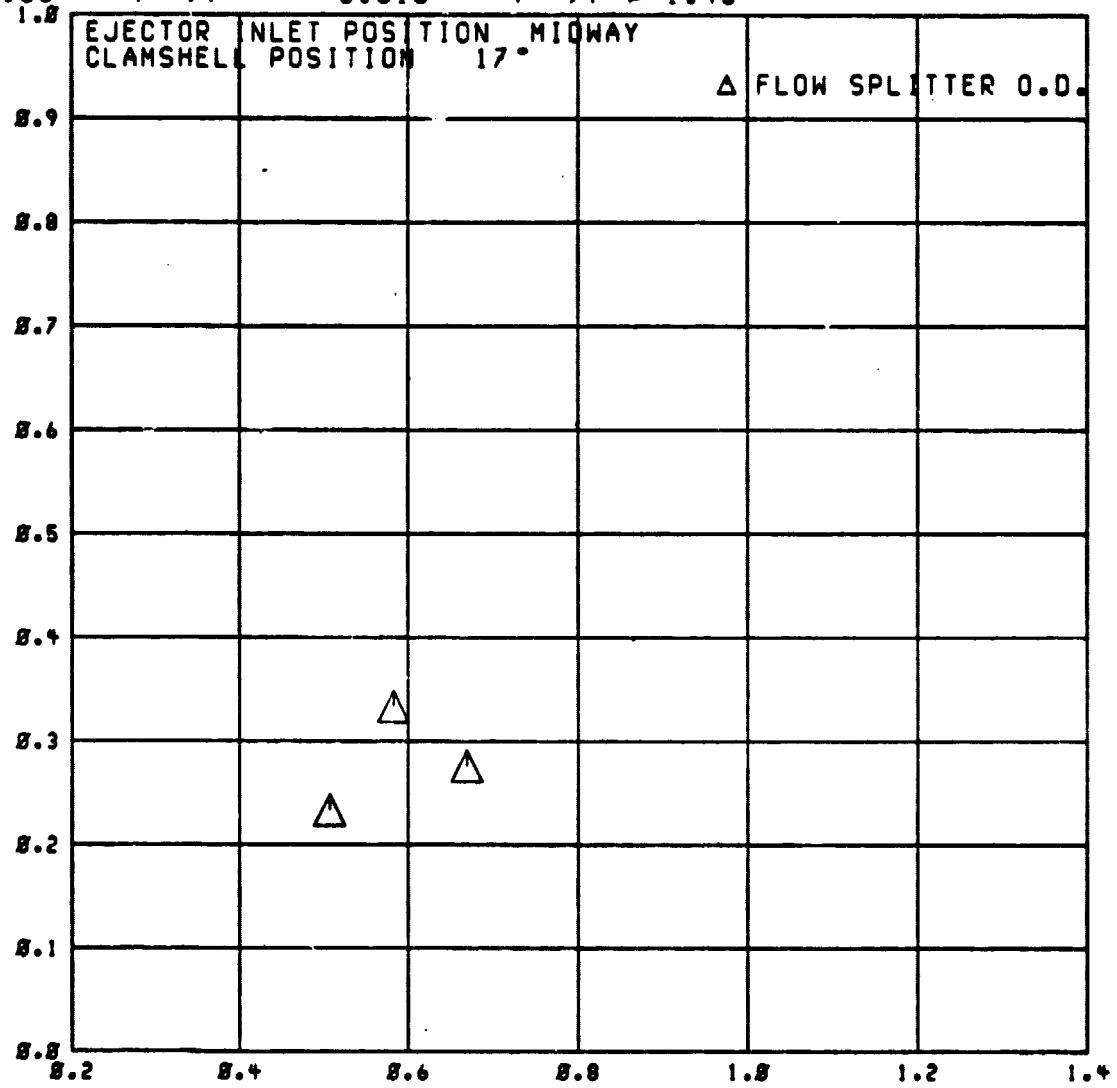
RDG=1398

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.36$      $P_{tr}/P_{os} = 3.618$      $P_{tr}/P_{td} = 1.45$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_t/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

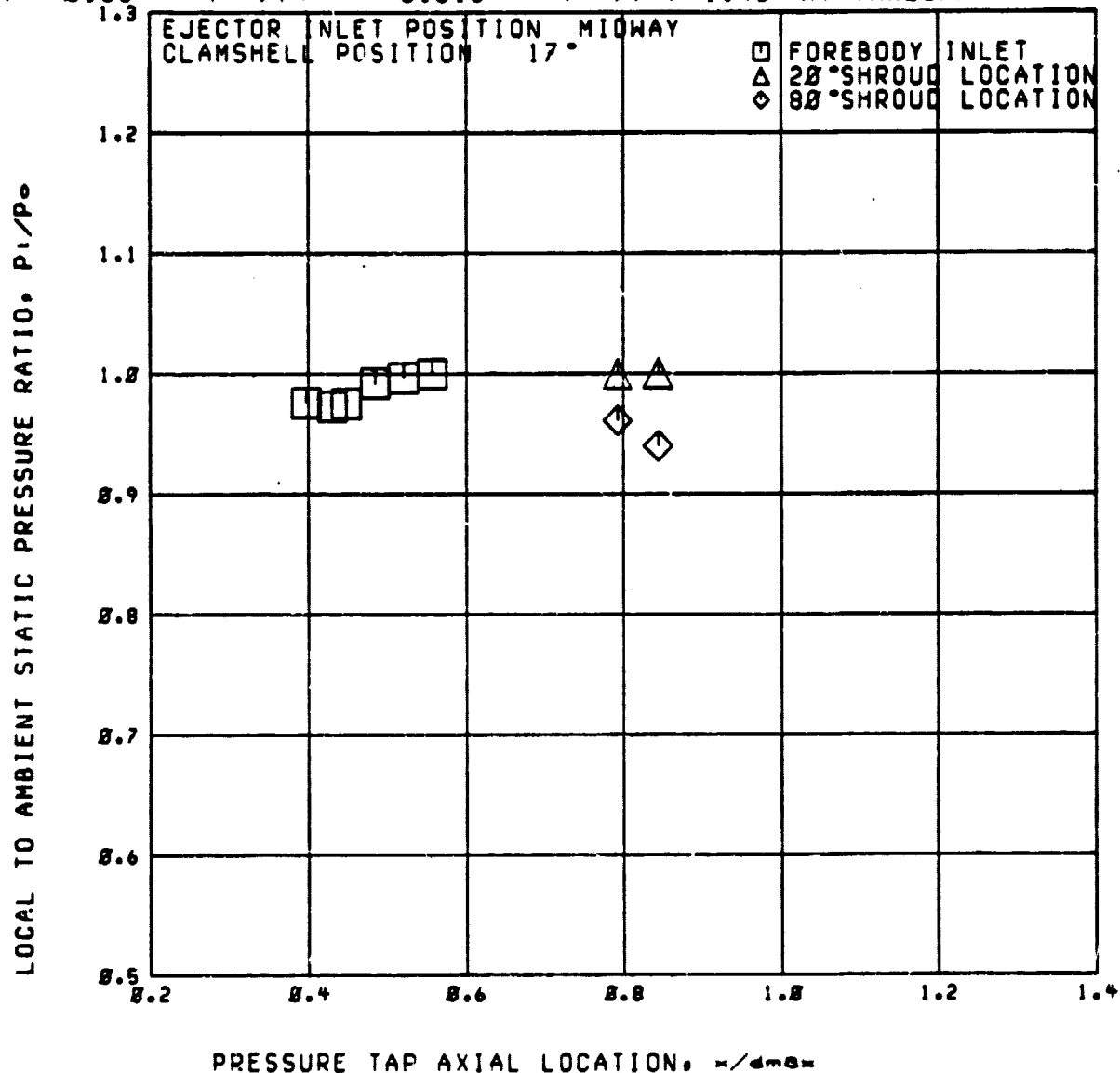
RUN 22

RDG=1398

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$   $P_{1c}/P_0 = 3.618$   $P_{1c}/P_{1p} = 1.45$  AT TAKEOFF





RUN 22

RDG=1349

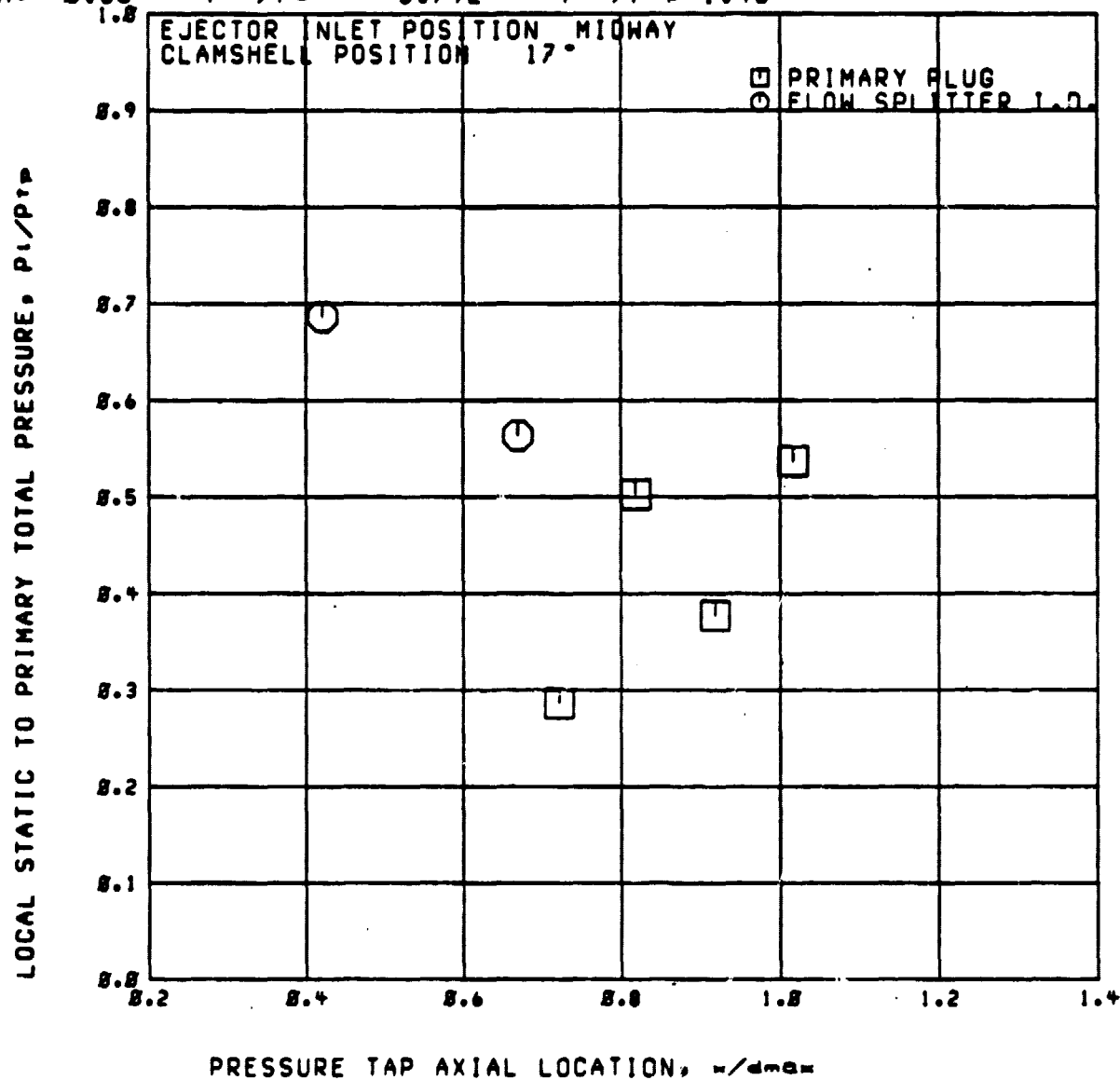
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{1c}/P_{0c} = 3.792$

$P_{1c}/P_{1p} = 1.45$



Run 22

ROG=1399

C3

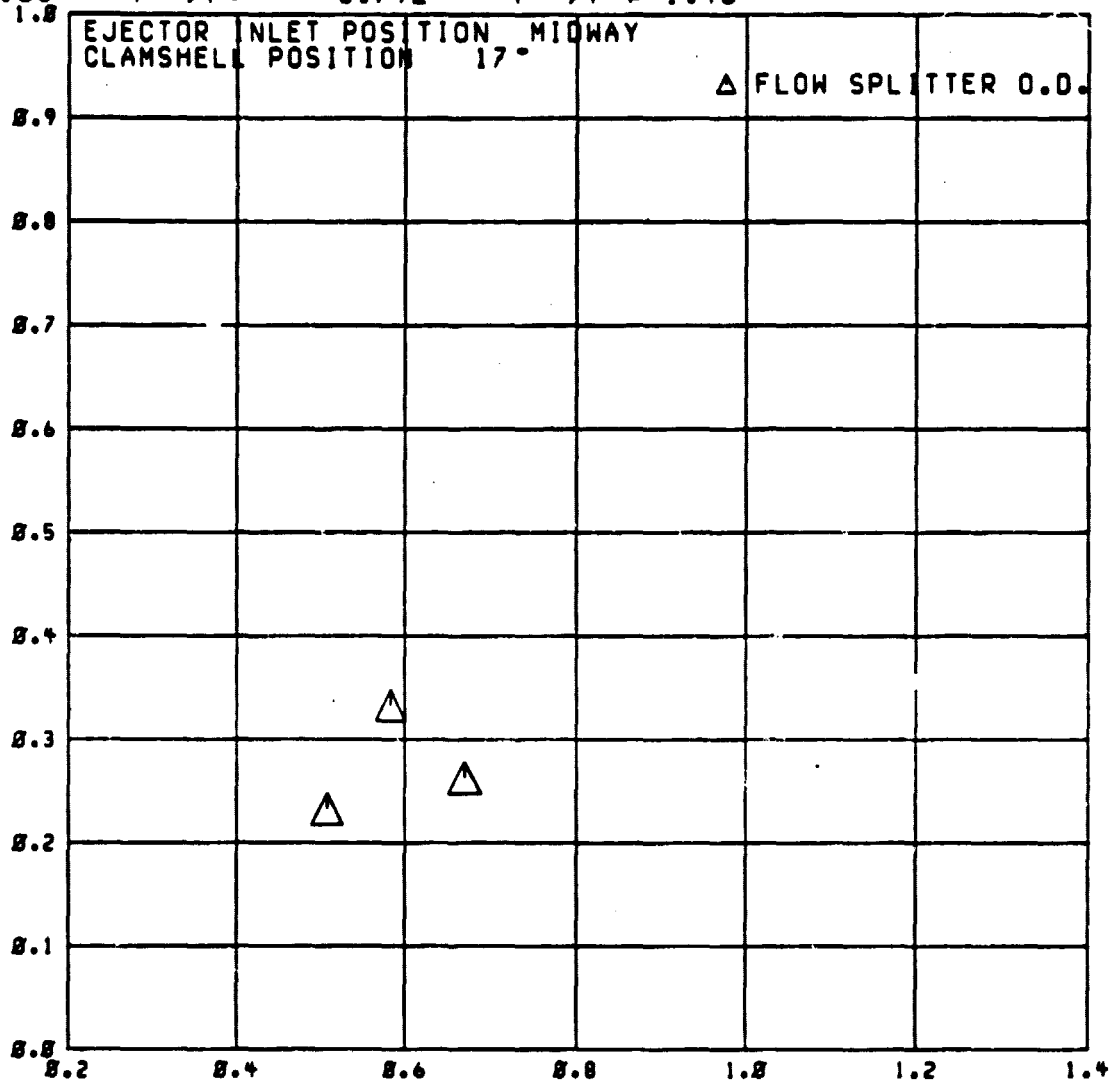
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 = 3.792$

$P_{tr}/P_{tr0} = 1.45$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

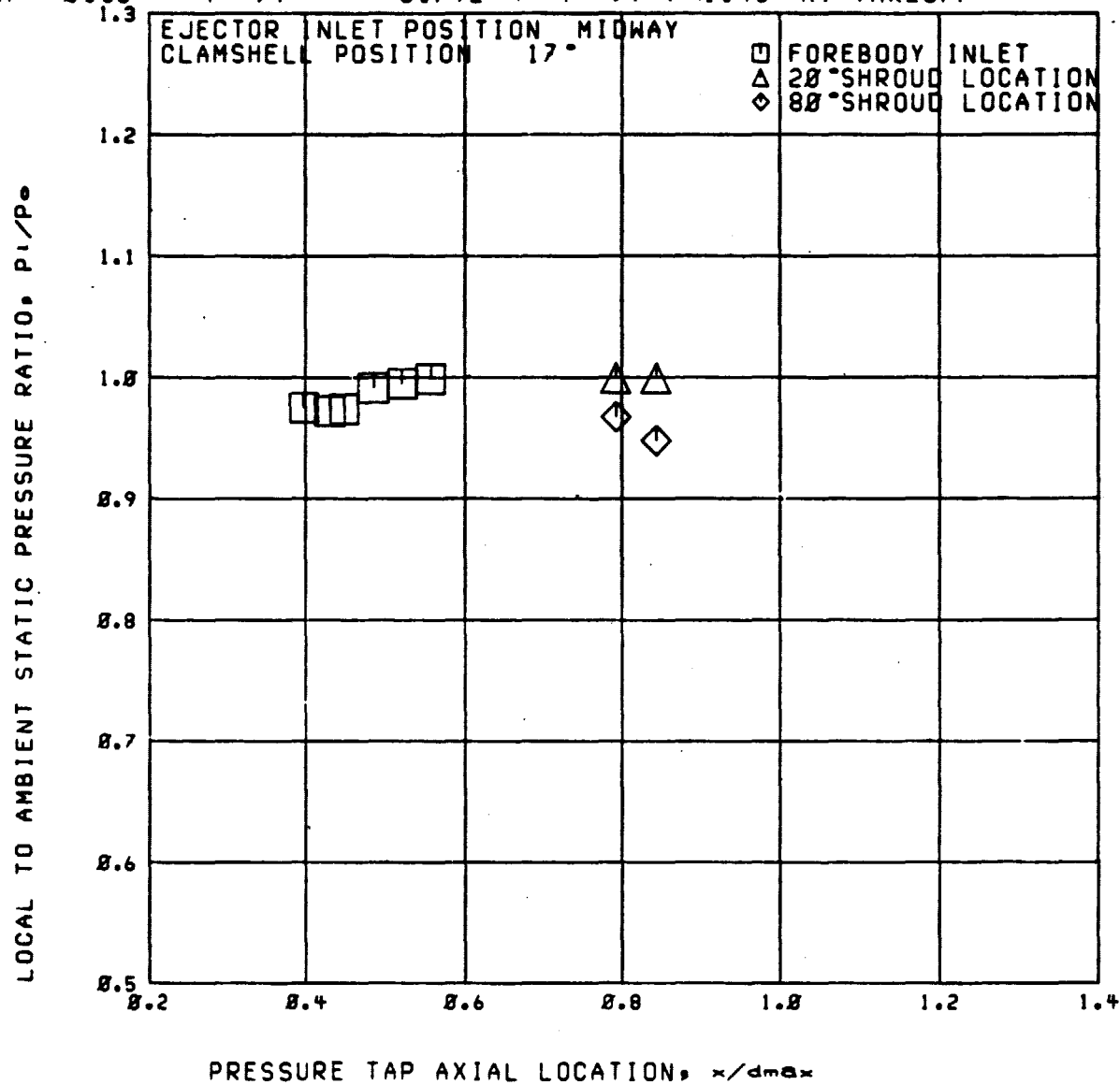
RUN 22

RDG=1399

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$      $P_{t0}/P_0 = 3.792$      $P_{t0}/P_{t0} = 1.45$  AT TAKEOFF



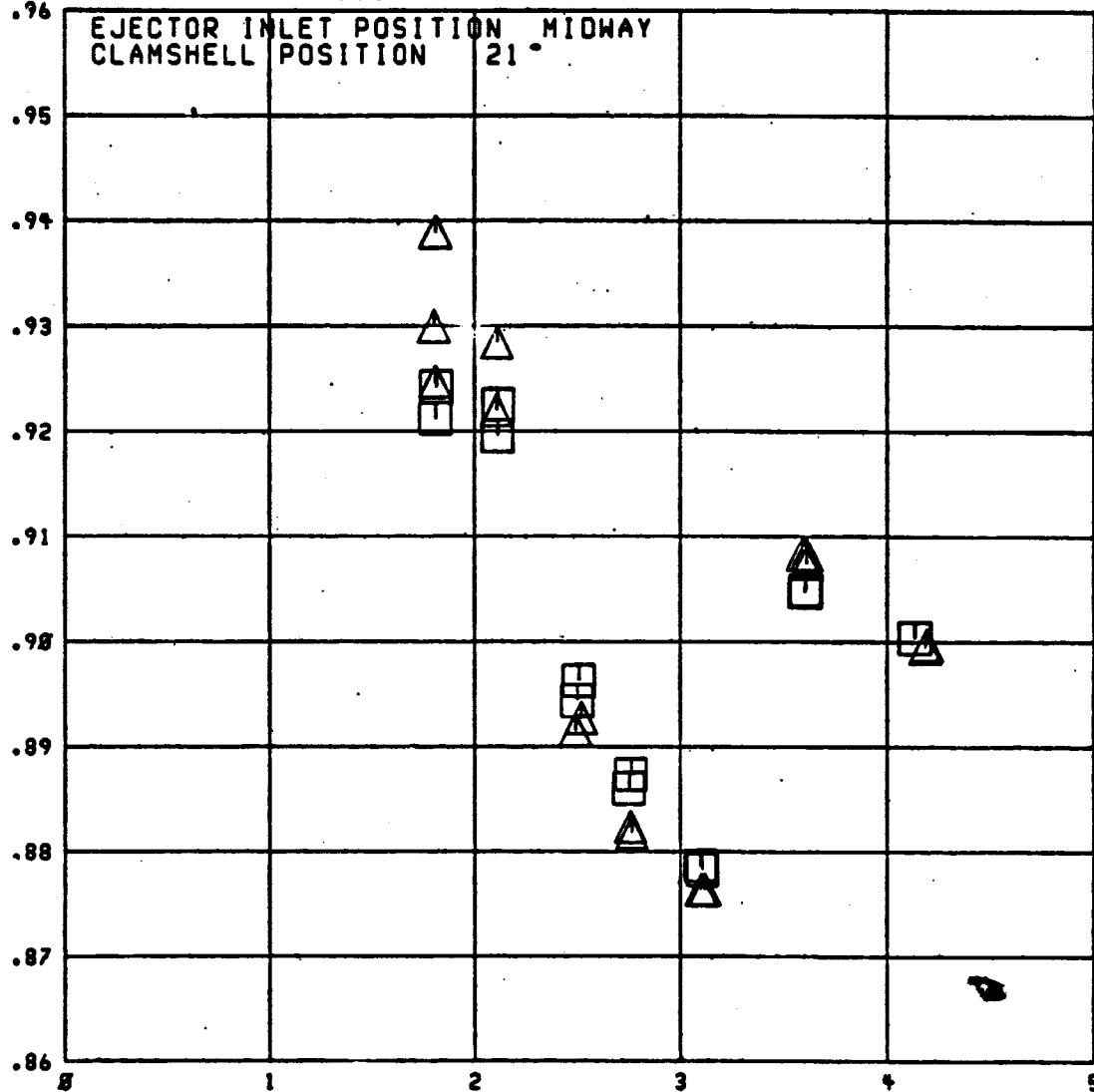
RDG 1408-1437

C3  
TAKEOFF  
RUN 23

$M = 0.84$

$P_{Tf}/P_{T0} = \square = 1.46$   
 $\Delta = 1.78$

NOZZLE GROSS THRUST COEFFICIENT,  $CFPI$



FAN NOZZLE PRESSURE RATIO,  $PTF/PO$

ROG. 1408-1437

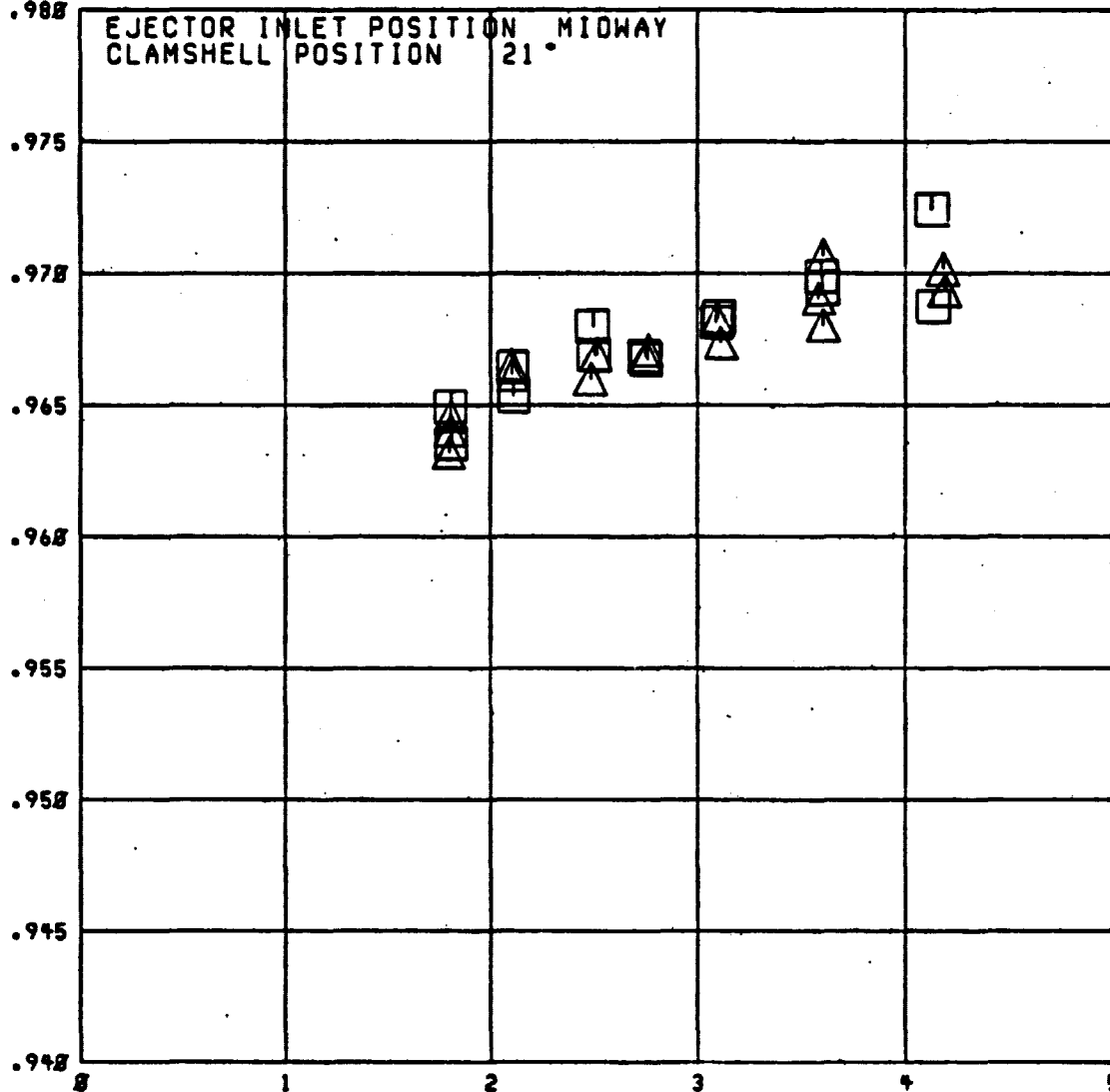
C3  
TAKEOFF

RUN 23  
.988

$M_0 = 0.84$

$P_{tr}/P_{tp} = \square = 1.46$   
 $\Delta = 1.70$

FAN-NOZZLE FLOW COEFFICIENT, CDF



FAN NOZZLE PRESSURE RATIO, PTF/PO

ROC. 1408-1437

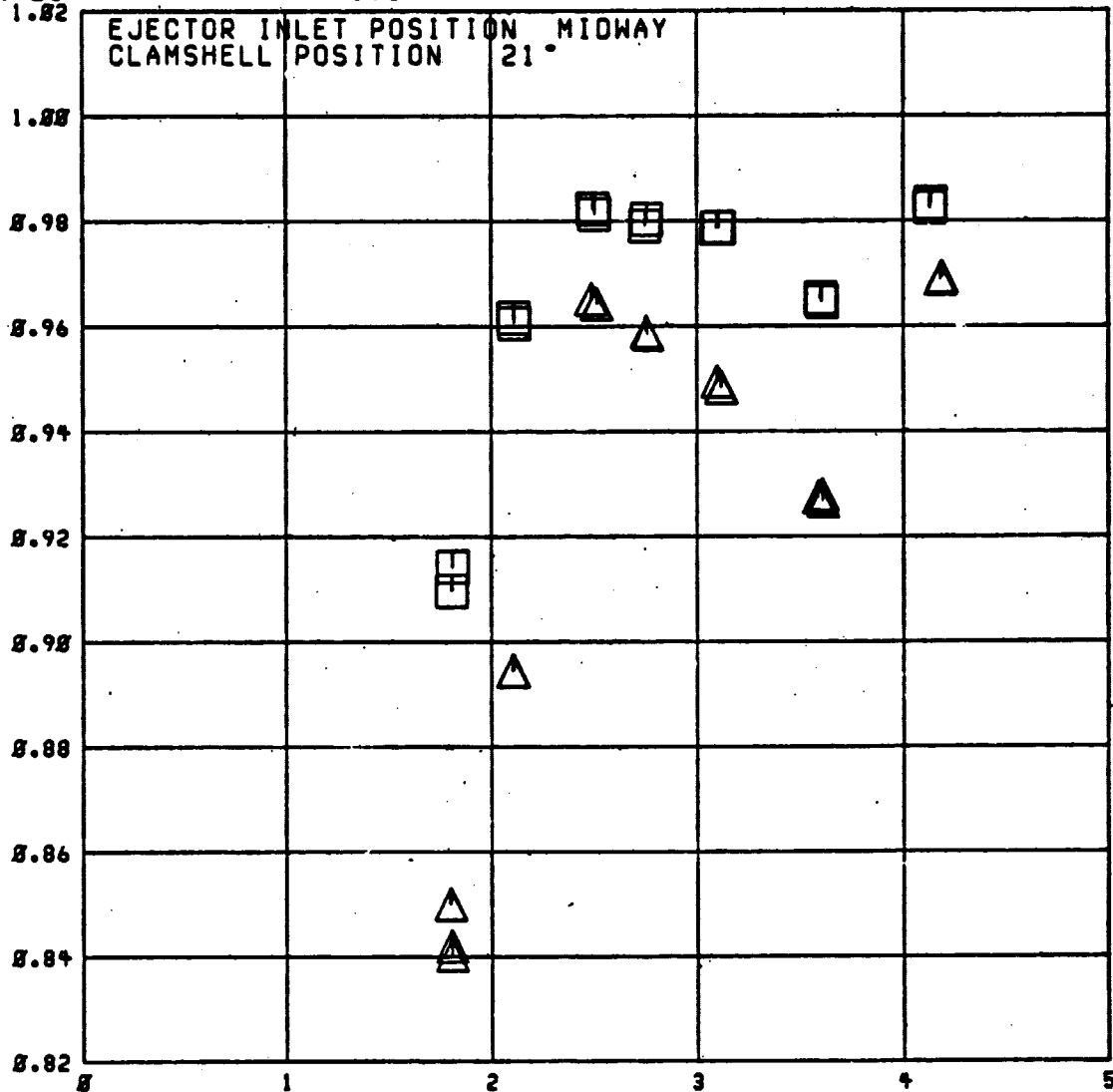
C3  
TAKEOFF

RUN 23

$M_0 = 0.84$

$P_{tC}/P_{tD} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP



FAN NOZZLE PRESSURE RATIO, PTF/PO

Run 23

RDG=1424

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

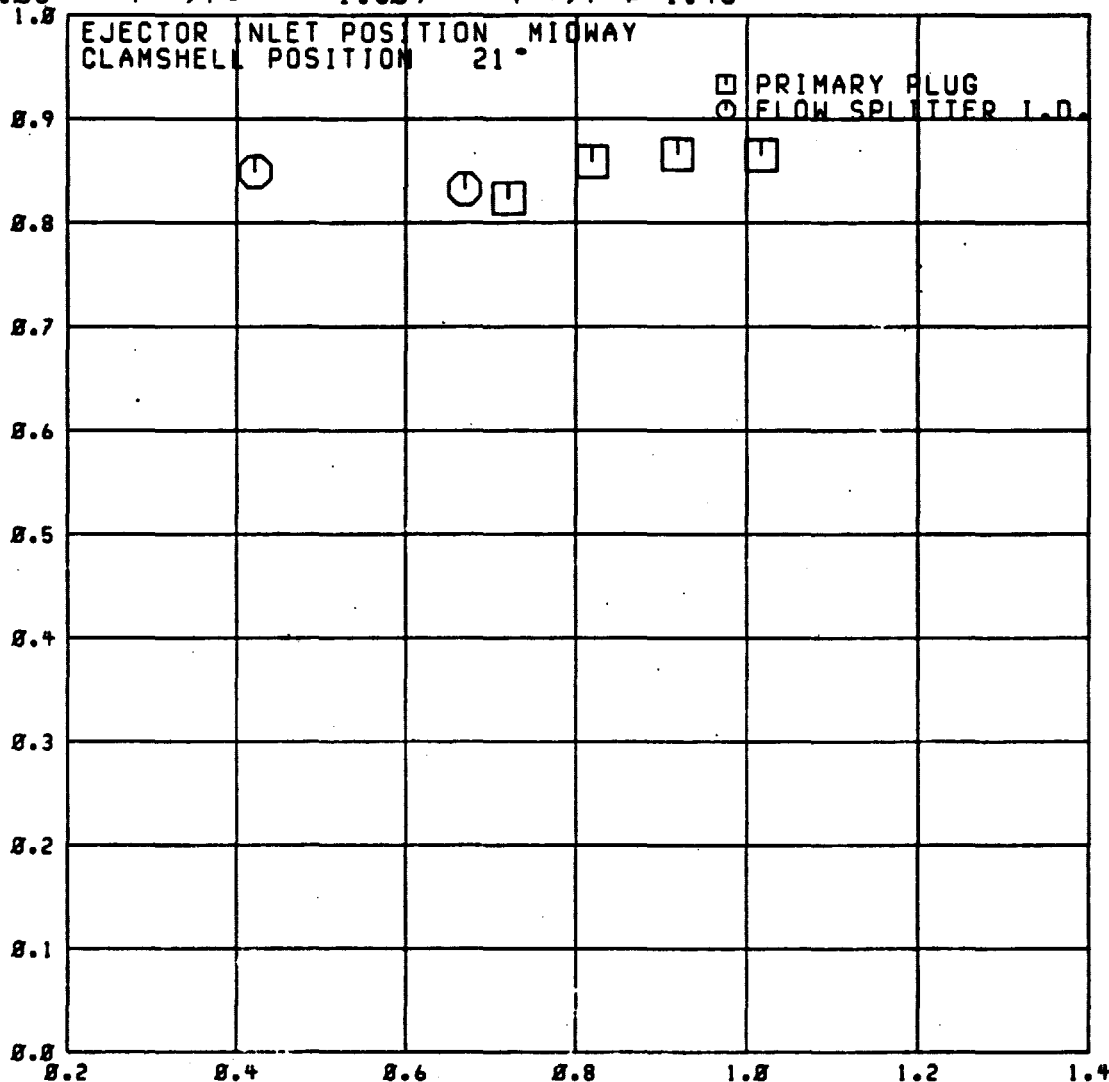
$M_o = 0.83$

$P_{tr}/P_o =$

1.809

$P_{tr}/P_{tp} = 1.46$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

RUN 23

C3

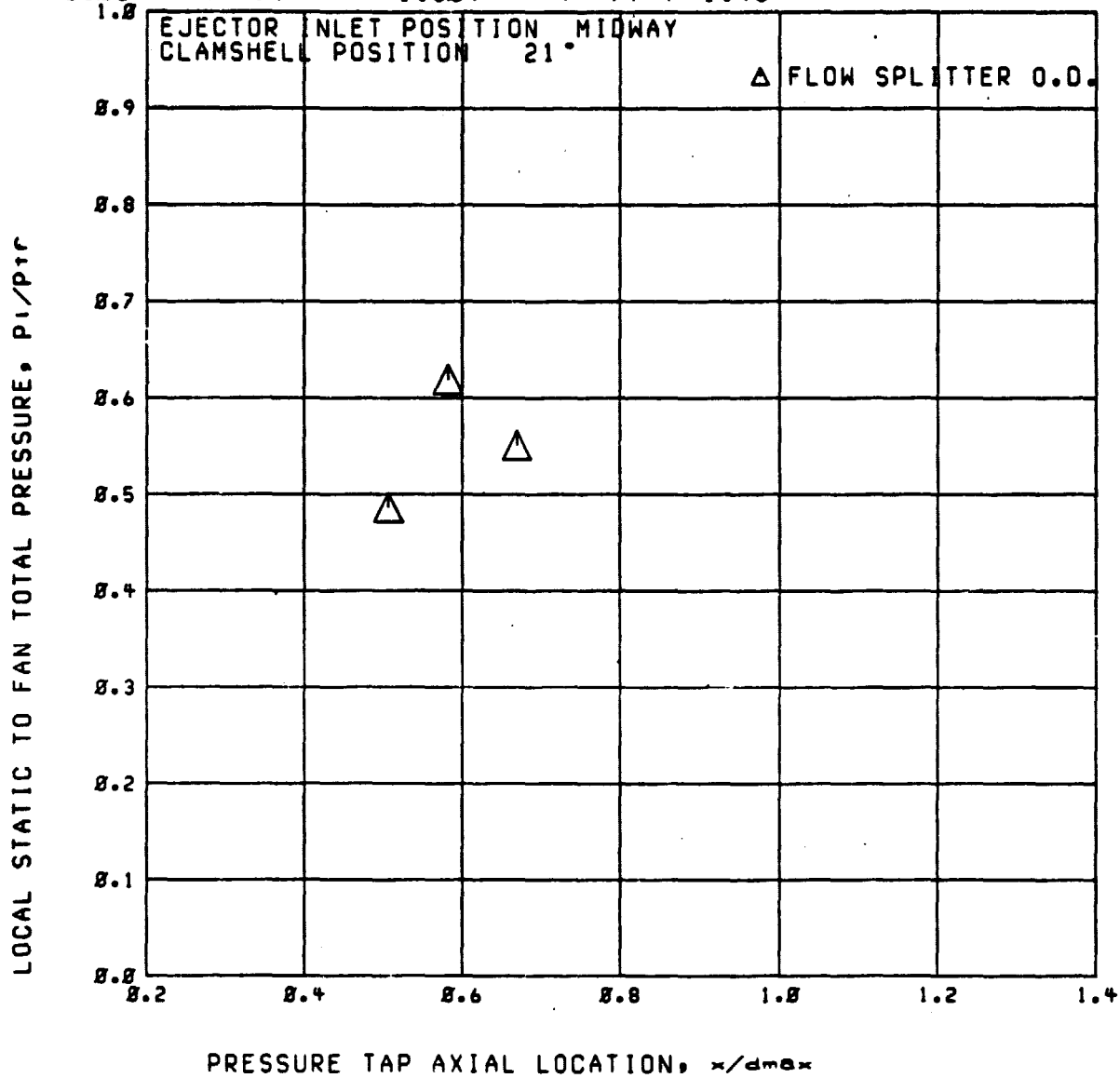
RDG=1424

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.03$

$P_{tr}/P_0 = 1.809$

$P_{tr}/P_{tp} = 1.46$





RUN 23

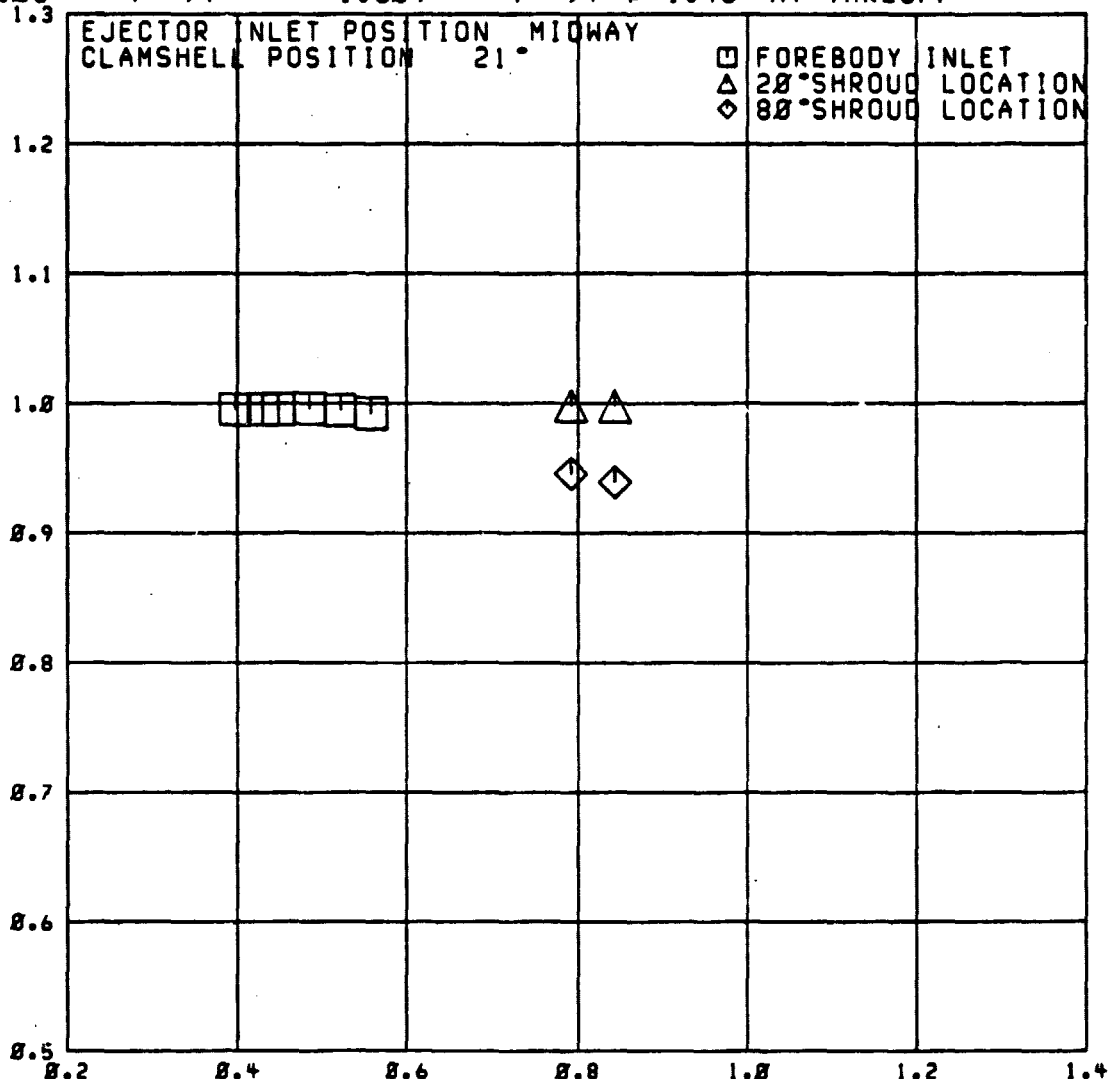
RDG=1424

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

Mo = 0.03      P<sub>tr</sub>/P<sub>o</sub> = 1.809      P<sub>tr</sub>/P<sub>tp</sub> = 1.46      AT TAKEOFF

LOCAL TO AMBIENT STATIC PRESSURE RATIO, P<sub>i</sub>/P<sub>o</sub>



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

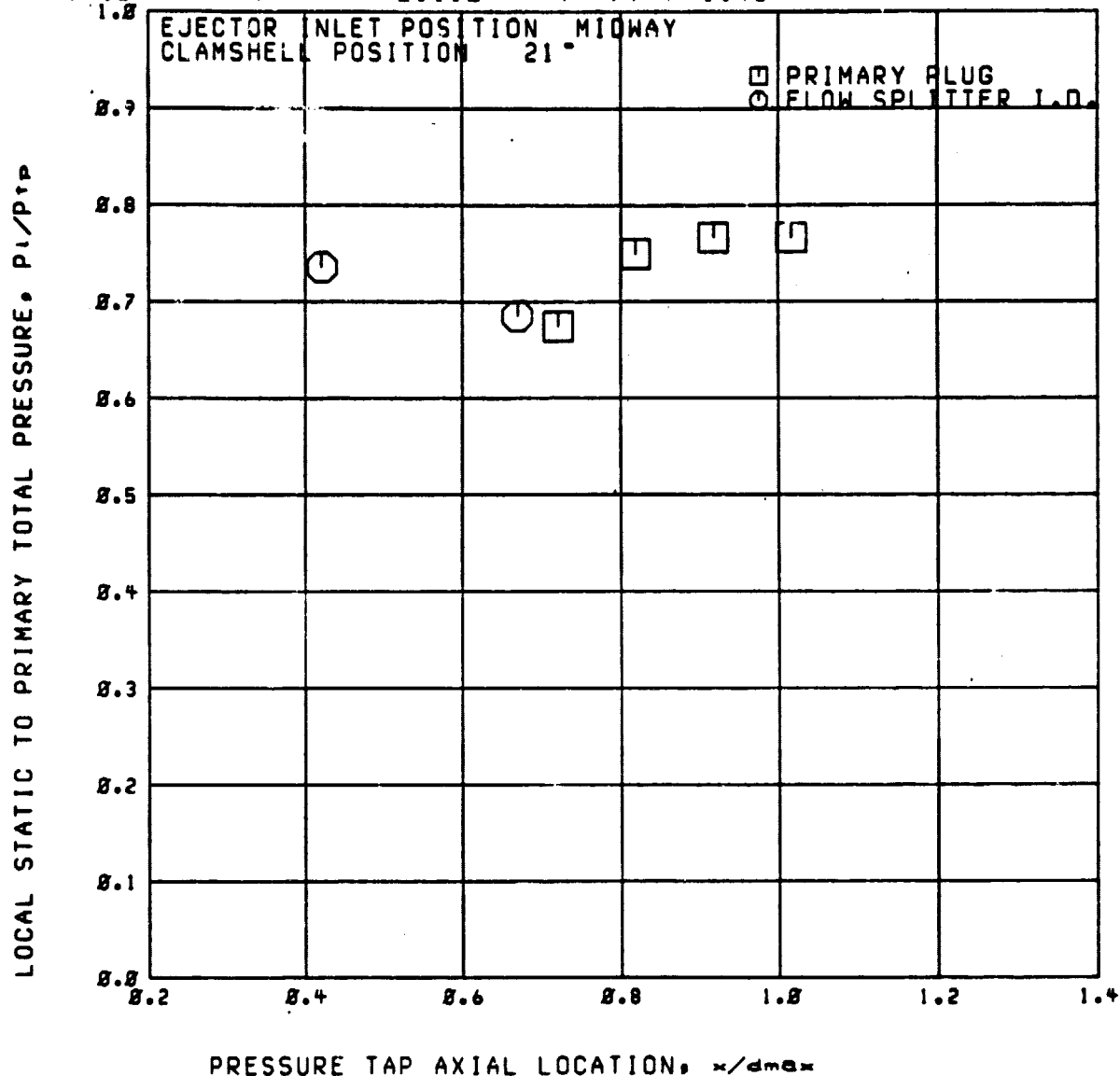
RUN 23

RDG=1425

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.82$   $P_{tr}/P_{0e} = 2.112$   $P_{tr}/P_{tp} = 1.43$



RUN 23

RDG=1425

C3

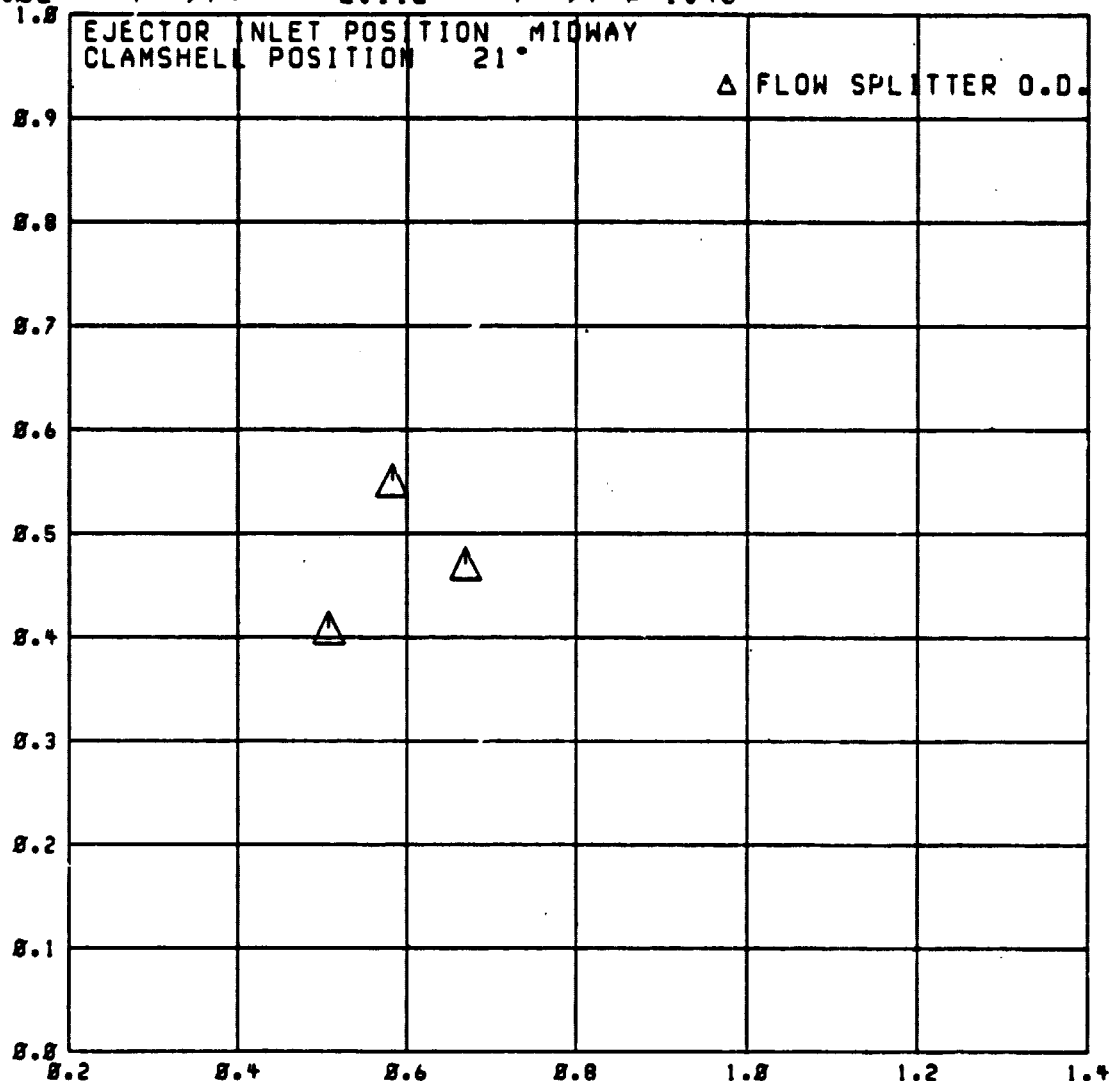
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.82$

$P_{tr}/P_0 = 2.112$

$P_{tr}/P_{tp} = 1.43$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

RUN 23

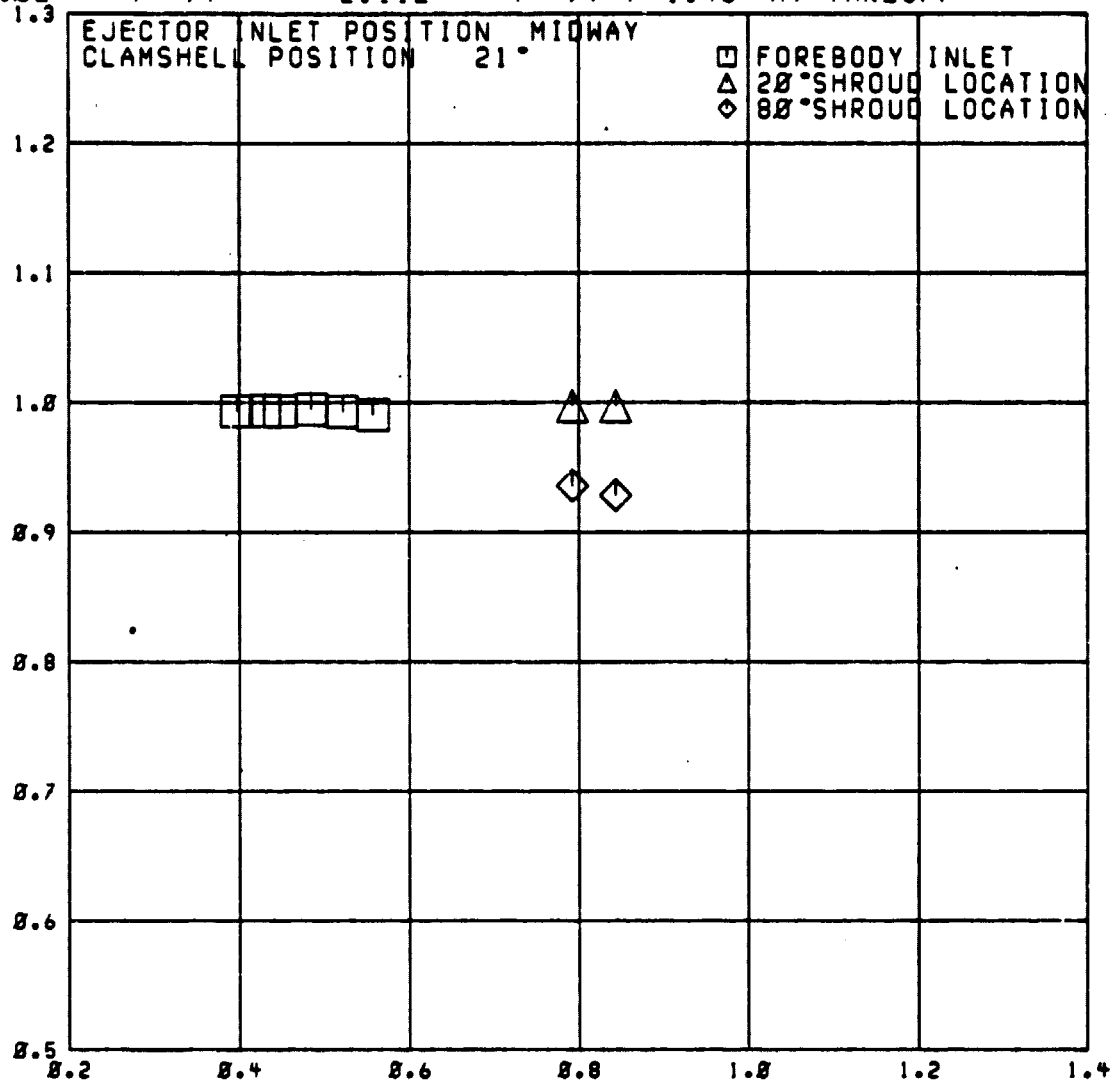
RDG=1425

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.82$   $P_{tr}/P_o = 2.112$   $P_{tr}/P_{tr} = 1.43$  AT TAKEOFF

LOCAL TO AMBIENT STATIC PRESSURE RATIO,  $P_i/P_o$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

Run 23

RDG=1426

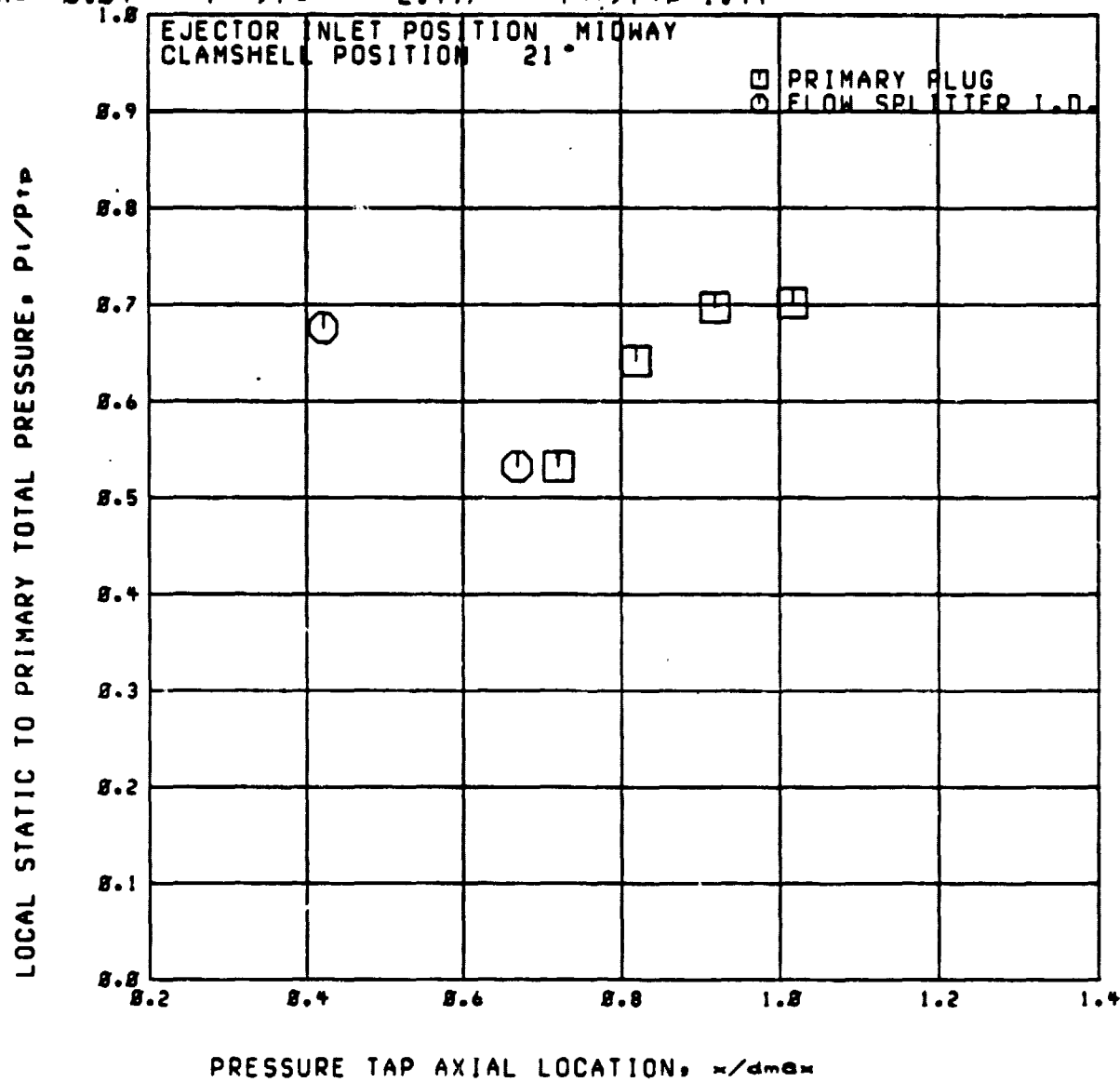
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.84$

$P_{tr}/P_o = 2.497$

$P_{tr}/P_{tp} = 1.44$



Run 23

RDG=1426

C3

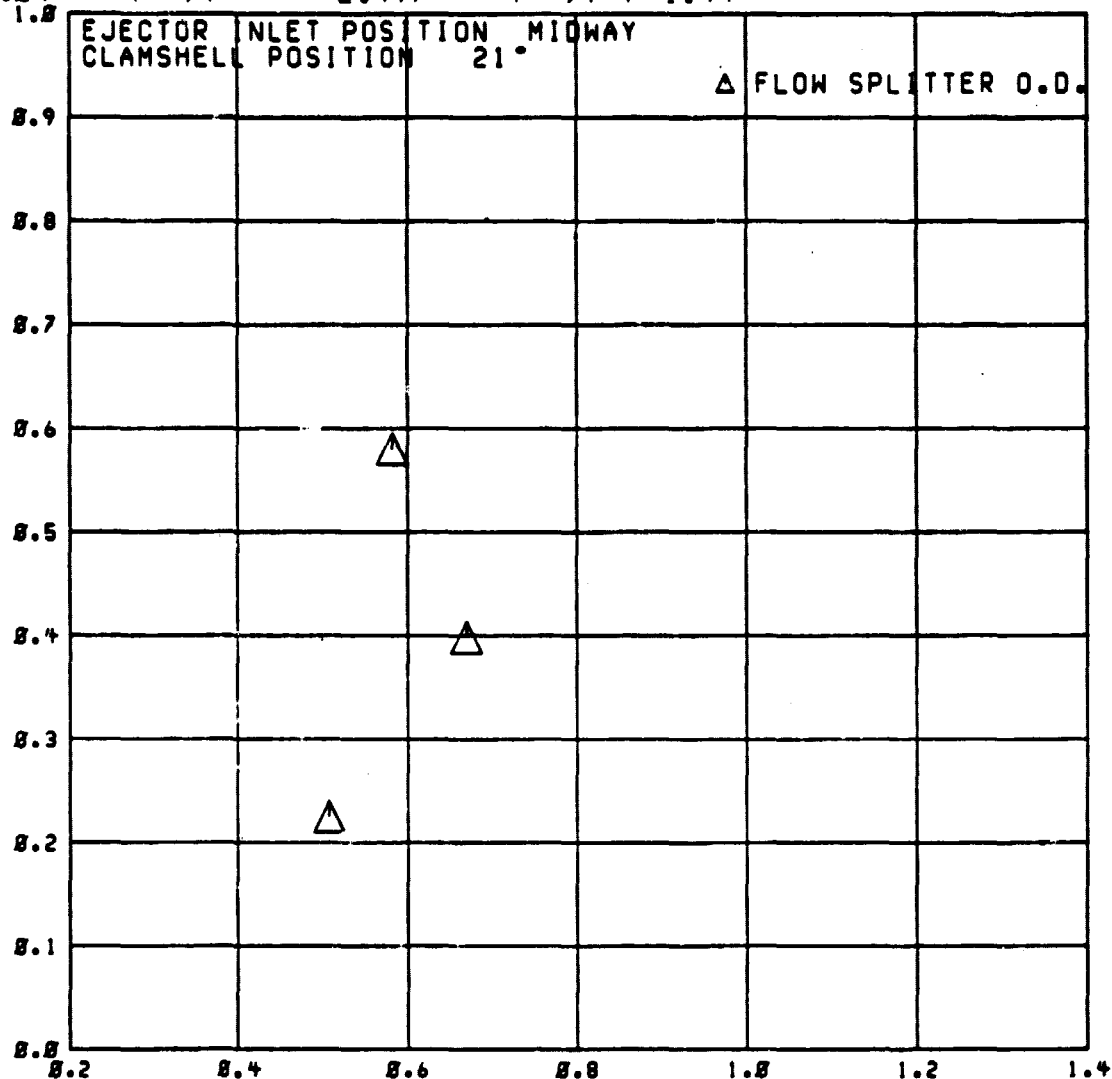
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.84$

$P_{tr}/P_o = 2.497$

$P_{tr}/P_{tr} = 1.44$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_t/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

Run 23

RDG=1426

C3

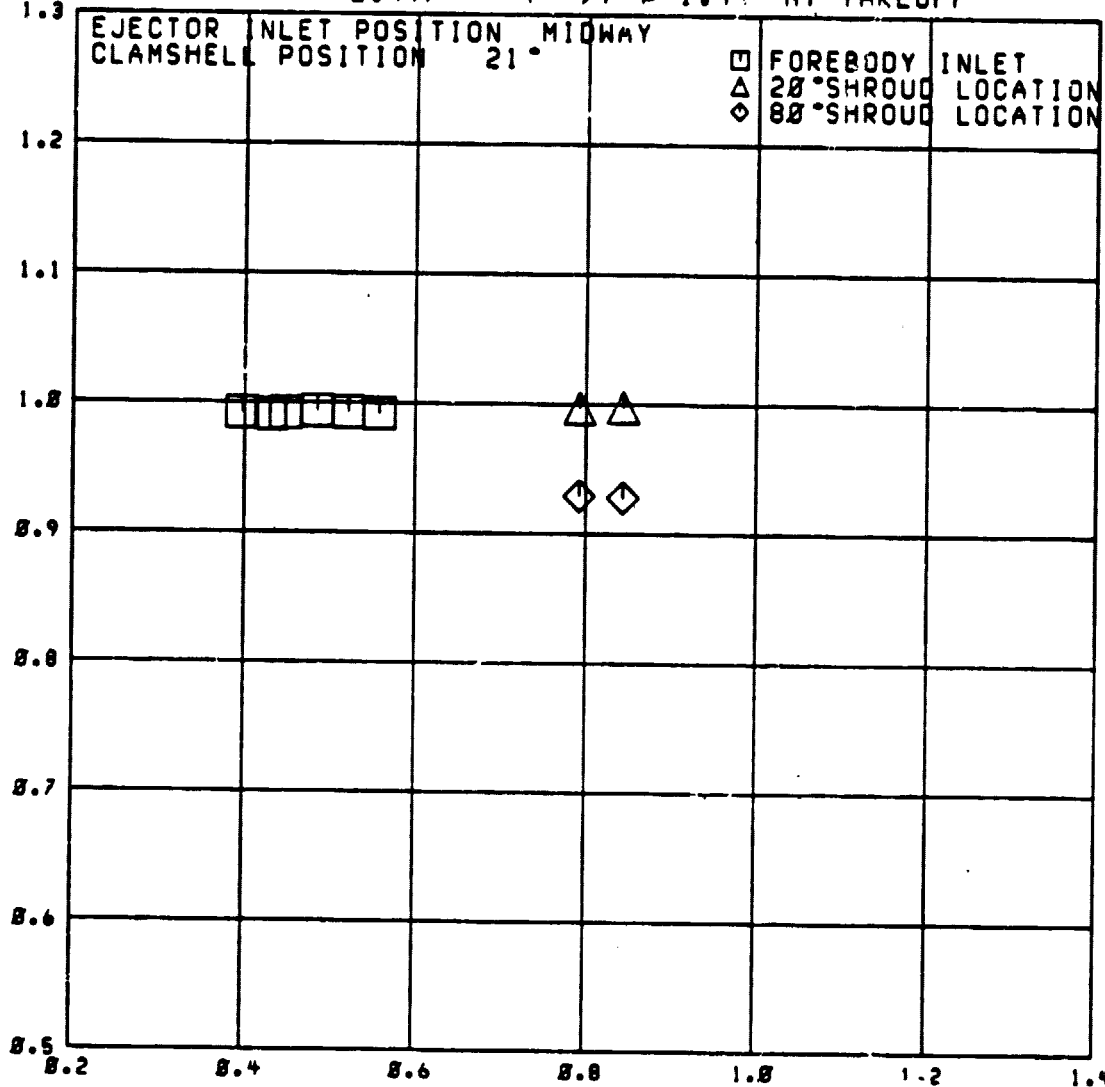
# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 8.84$

$P_{t0}/P_0 = 2.497$

$P_{t0}/P_{t0} = 1.44$  AT TAKEOFF

LOCAL TO AMBIENT STATIC PRESSURE RATIO,  $P_i/P_0$



PRESSURE TAP AXIAL LOCATION,  $x/d$

Run 23

RDG=1427

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

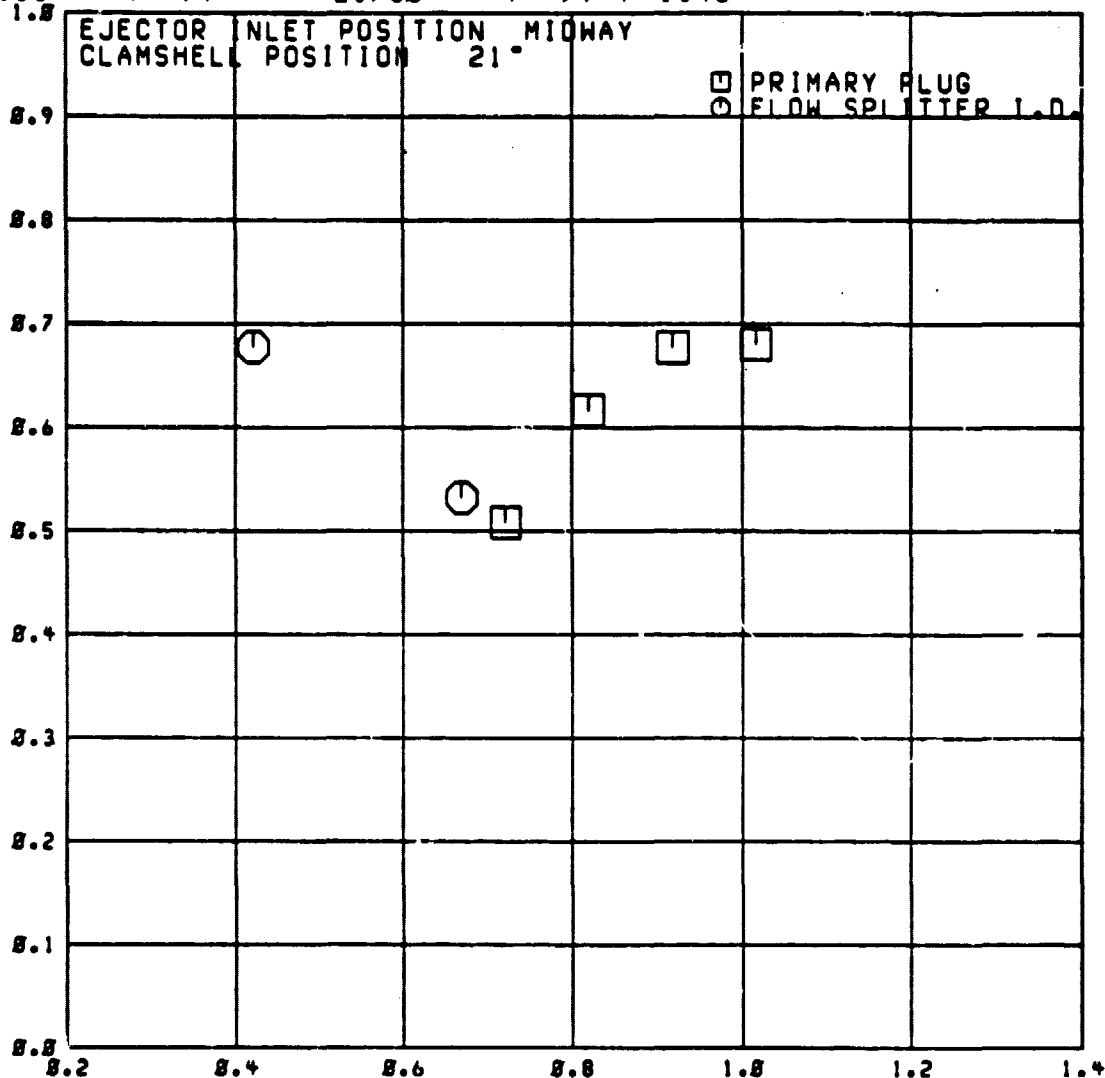
$M = 0.85$

$P_{tr}/P_{oe} =$

2.768

$P_{tr}/P_{tp} = 1.46$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$



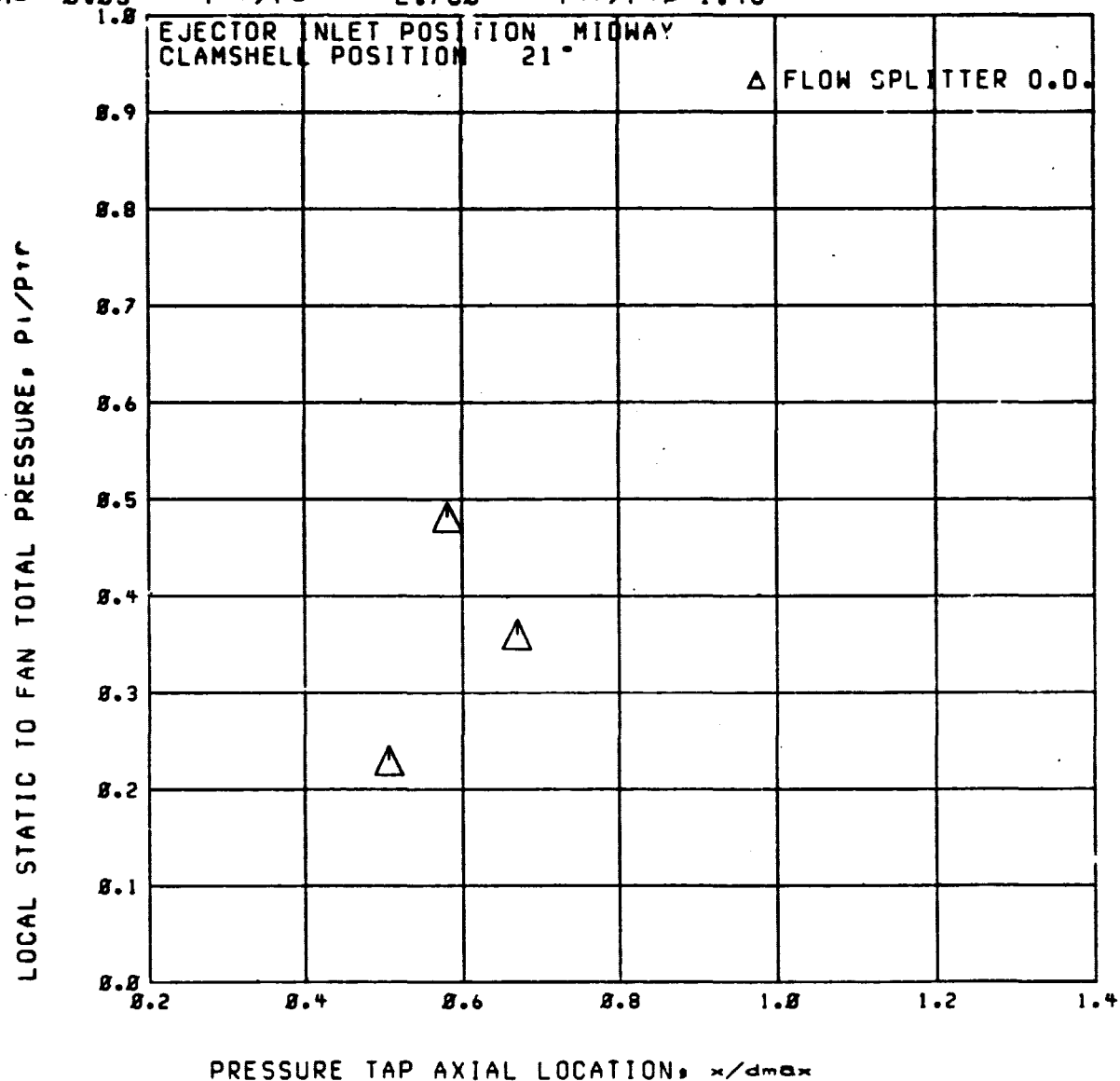
Run 23

RDG=1427

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.85$   $P_{tr}/P_0 = 2.768$   $P_{tr}/P_{tr} = 1.46$



Run 23

RDG=1427

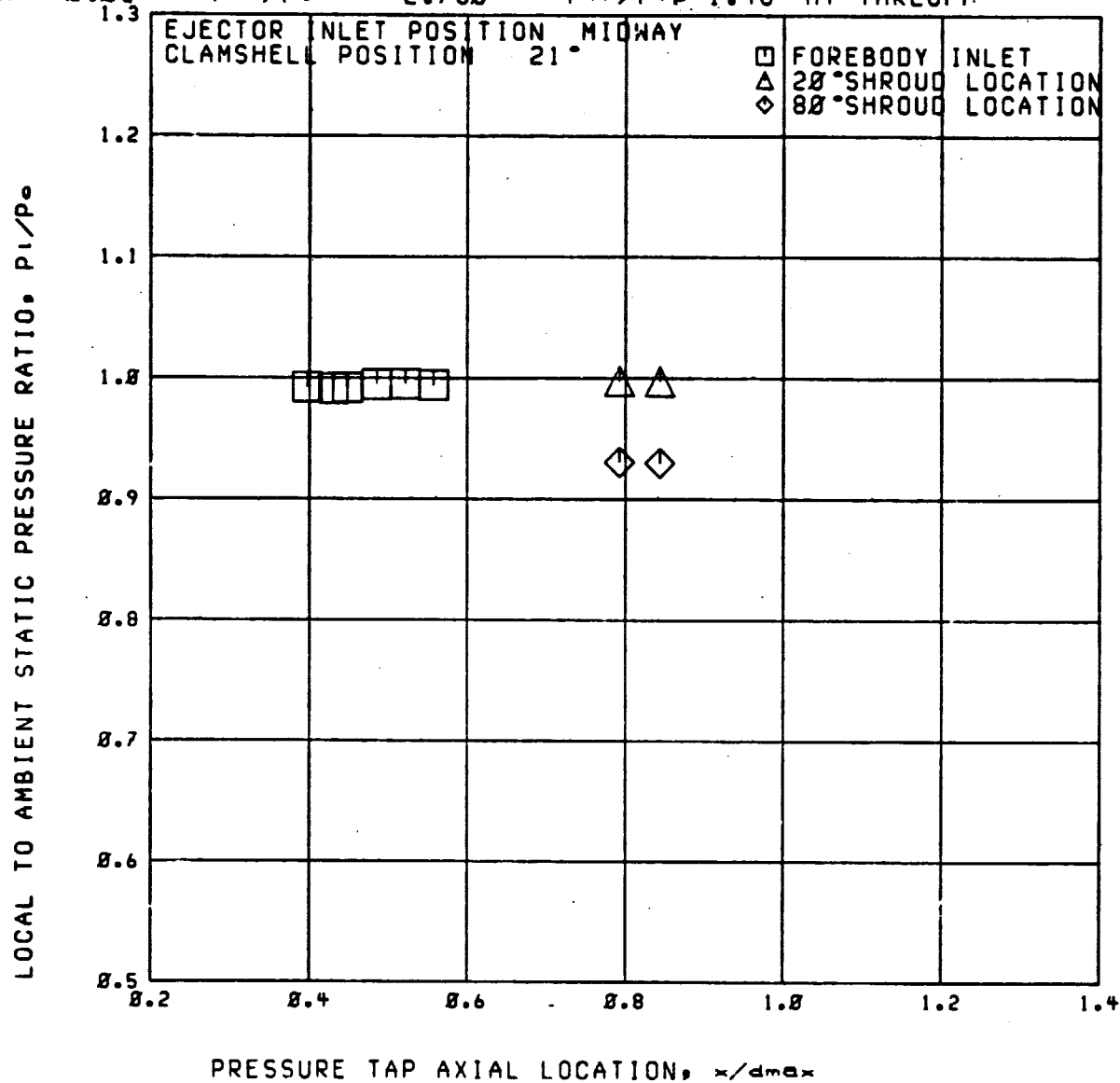
C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.05$

$P_{tr}/P_0 = 2.768$

$P_{tr}/P_{tr} = 1.46$  AT TAKEOFF



RUN 23

RDG=1428

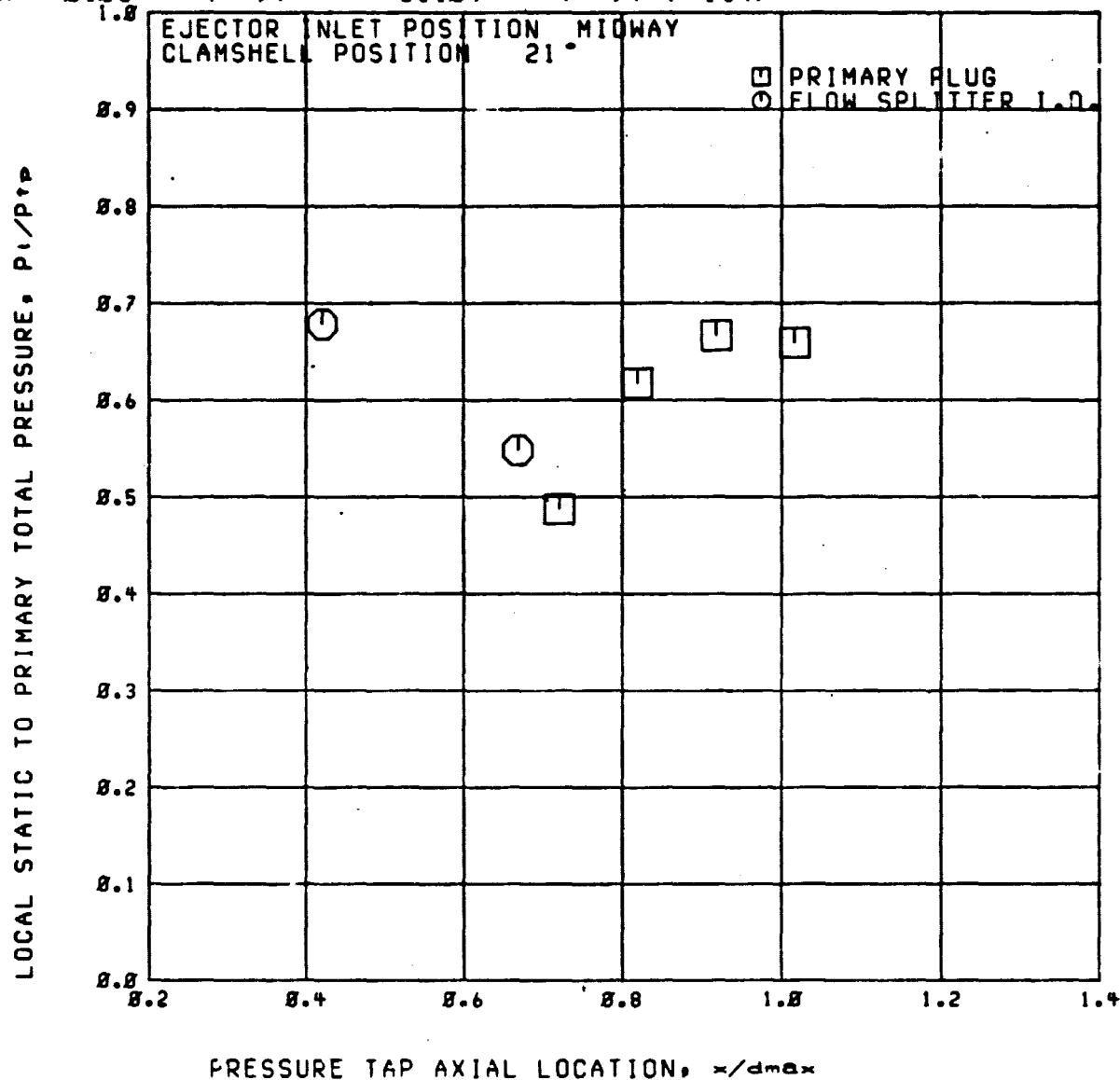
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.85$

$P_{tr}/P_0 = 3.189$

$P_{tr}/P_{tp} = 1.47$



RUN 23

RDG=1428

C3

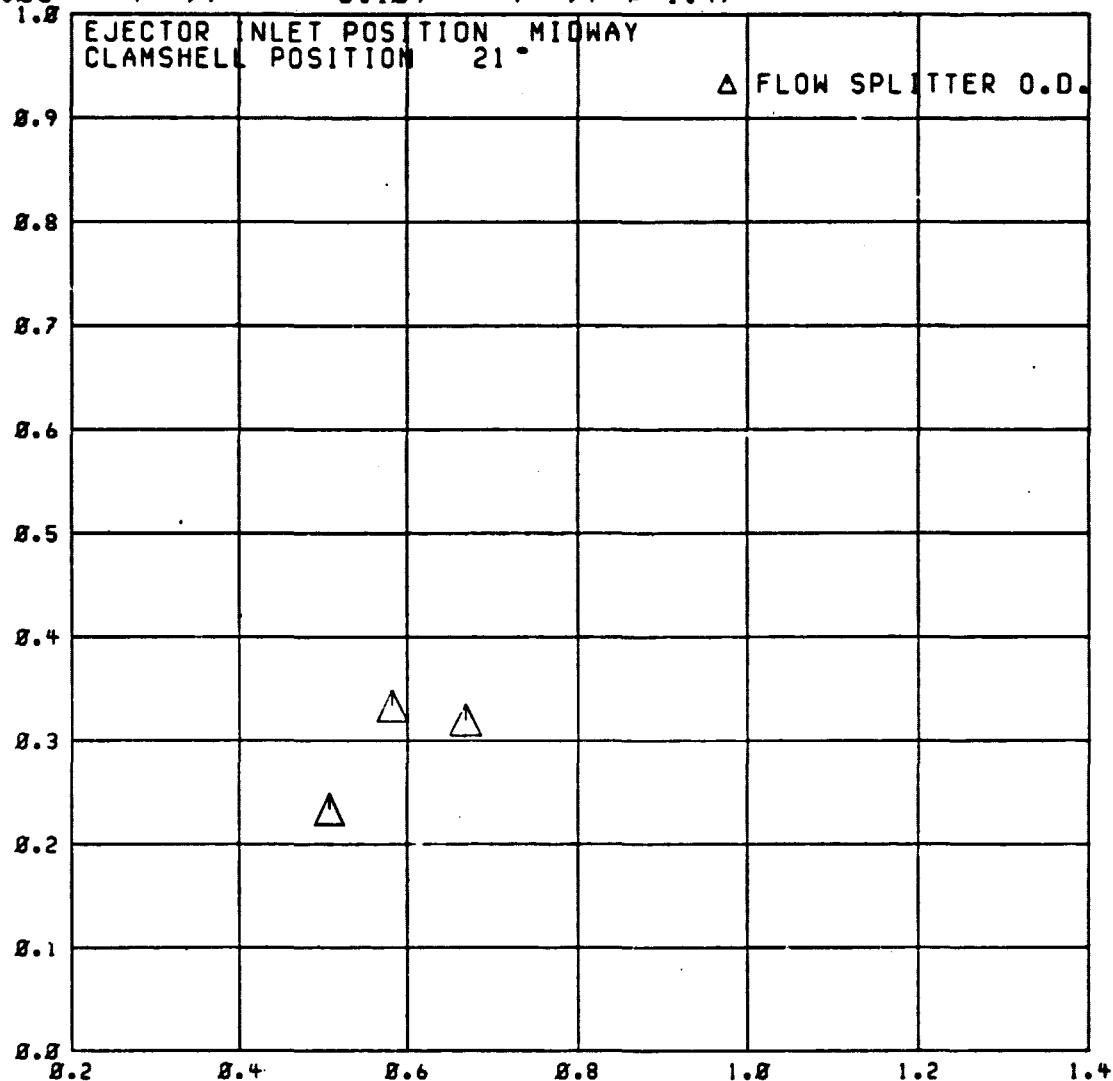
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.05$

$P_{tr}/P_o = 3.189$

$P_{tr}/P_{tp} = 1.47$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

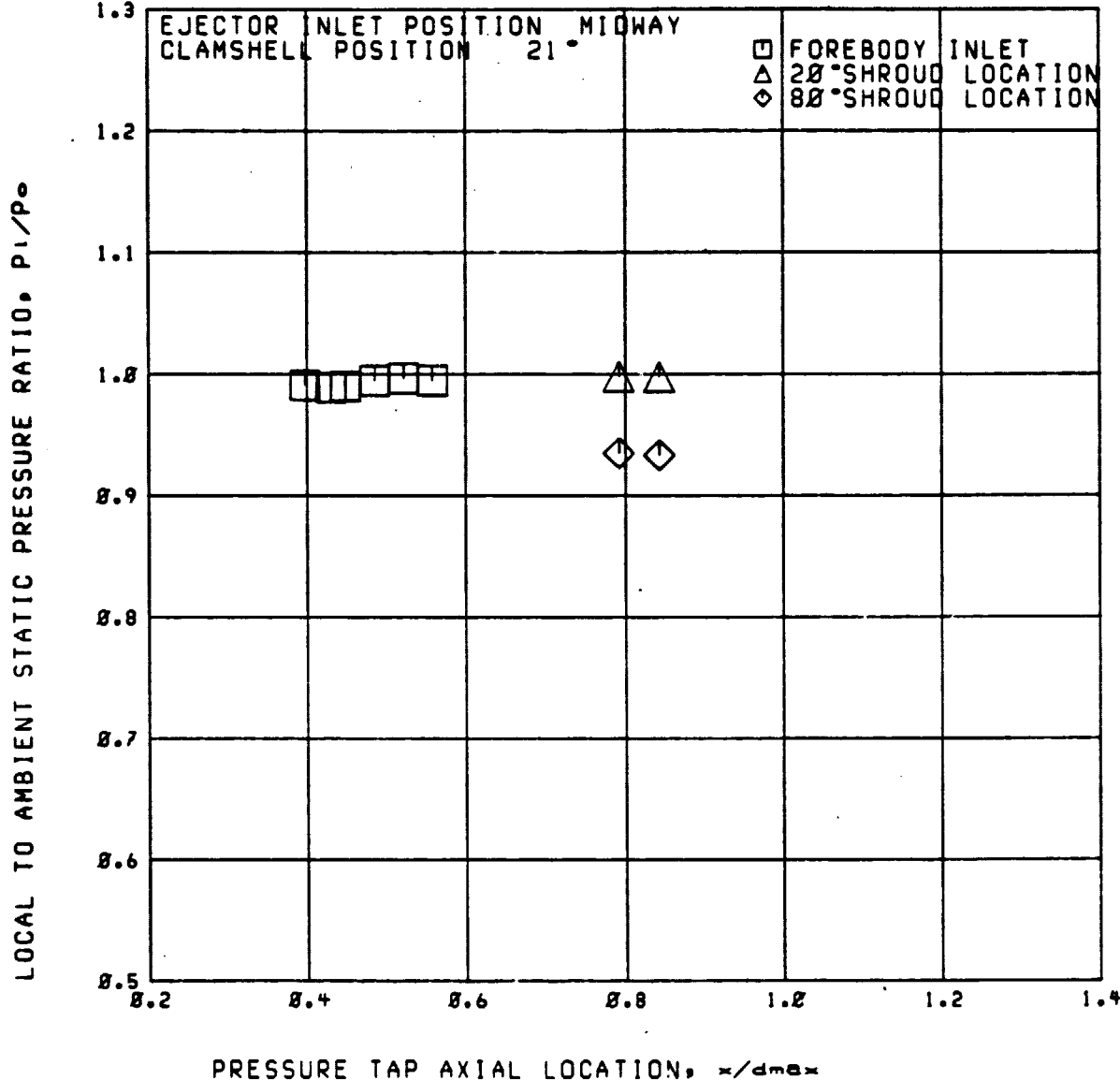
Run 23

RDG=1428

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.05$   $P_{ir}/P_0 = 3.109$   $P_{ir}/P_{ip} = 1.47$  AT TAKEOFF



Run 23

RDG=1429

C3

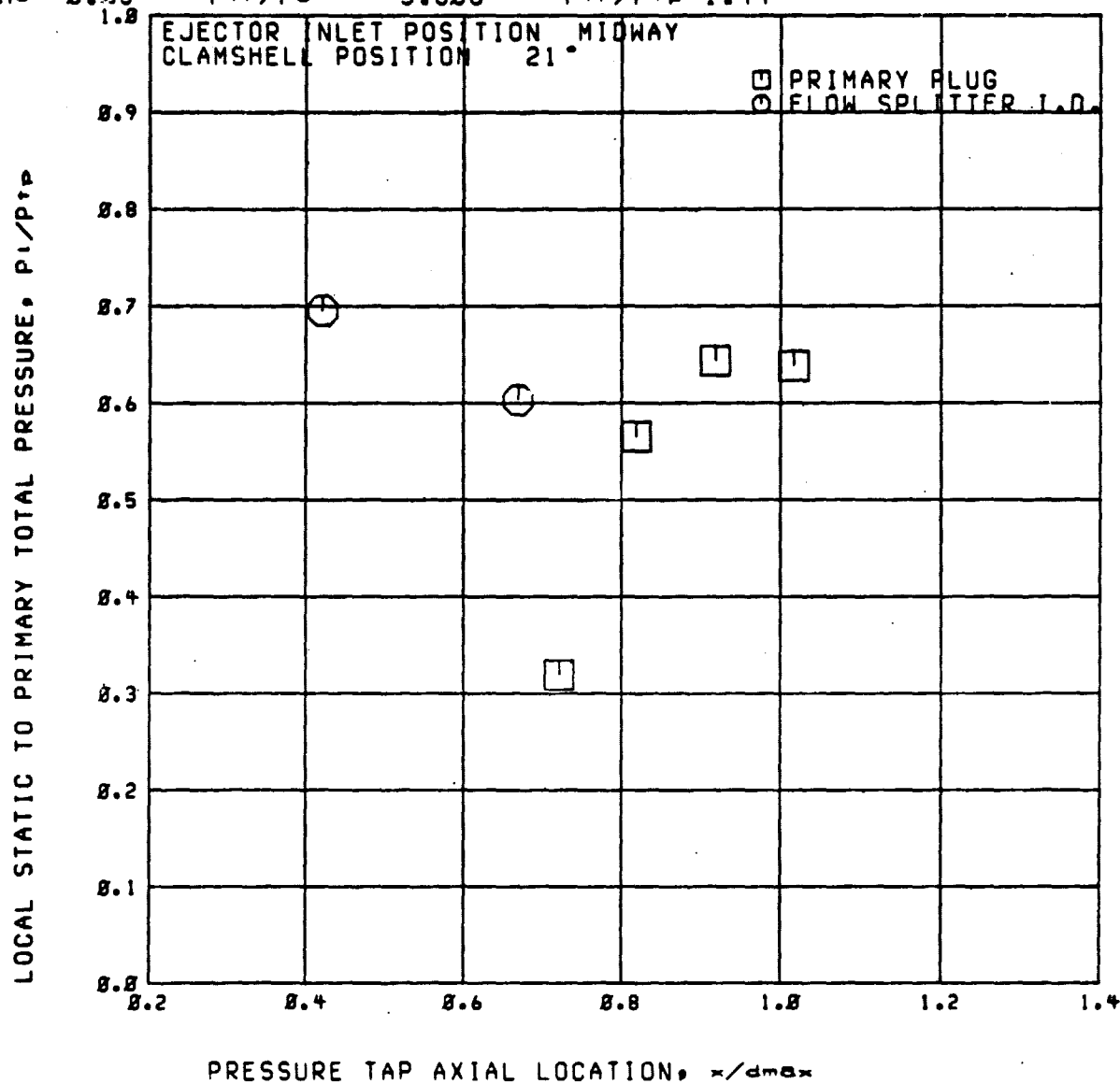
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.06$

$P_{tr}/P_{0e} =$

3.608

$P_{tr}/P_{tp} = 1.44$



RUN 23

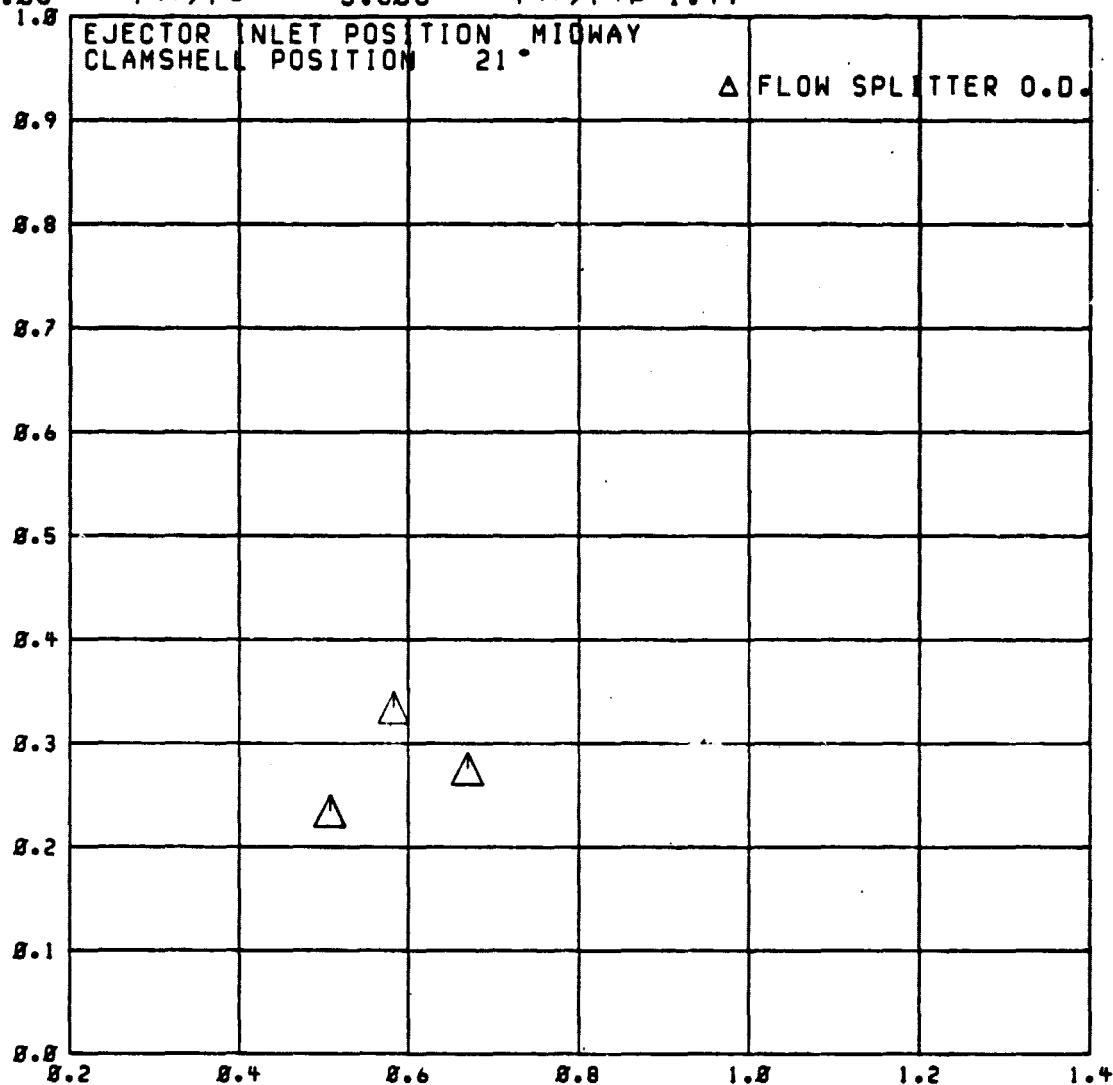
C3

RDG=1429

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.86$   $P_{tr}/P_o = 3.608$   $P_{tr}/P_{tp} = 1.44$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

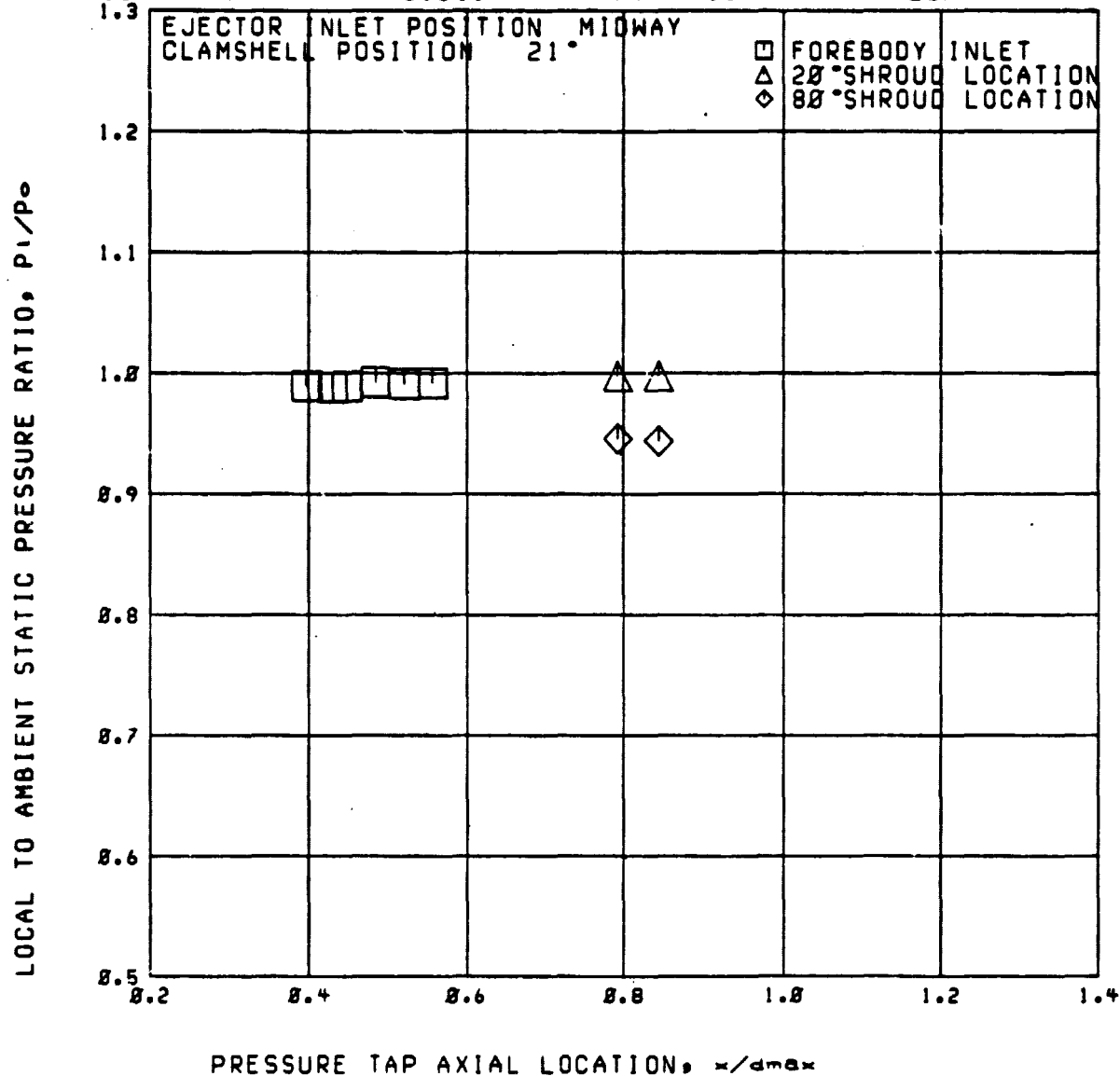
RUN 23

C3

RDG=1429

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.86$   $P_{tr}/P_o = 3.608$   $P_{tr}/P_{tr} = 1.44$  AT TAKEOFF





RUN 23

RDG=1438

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

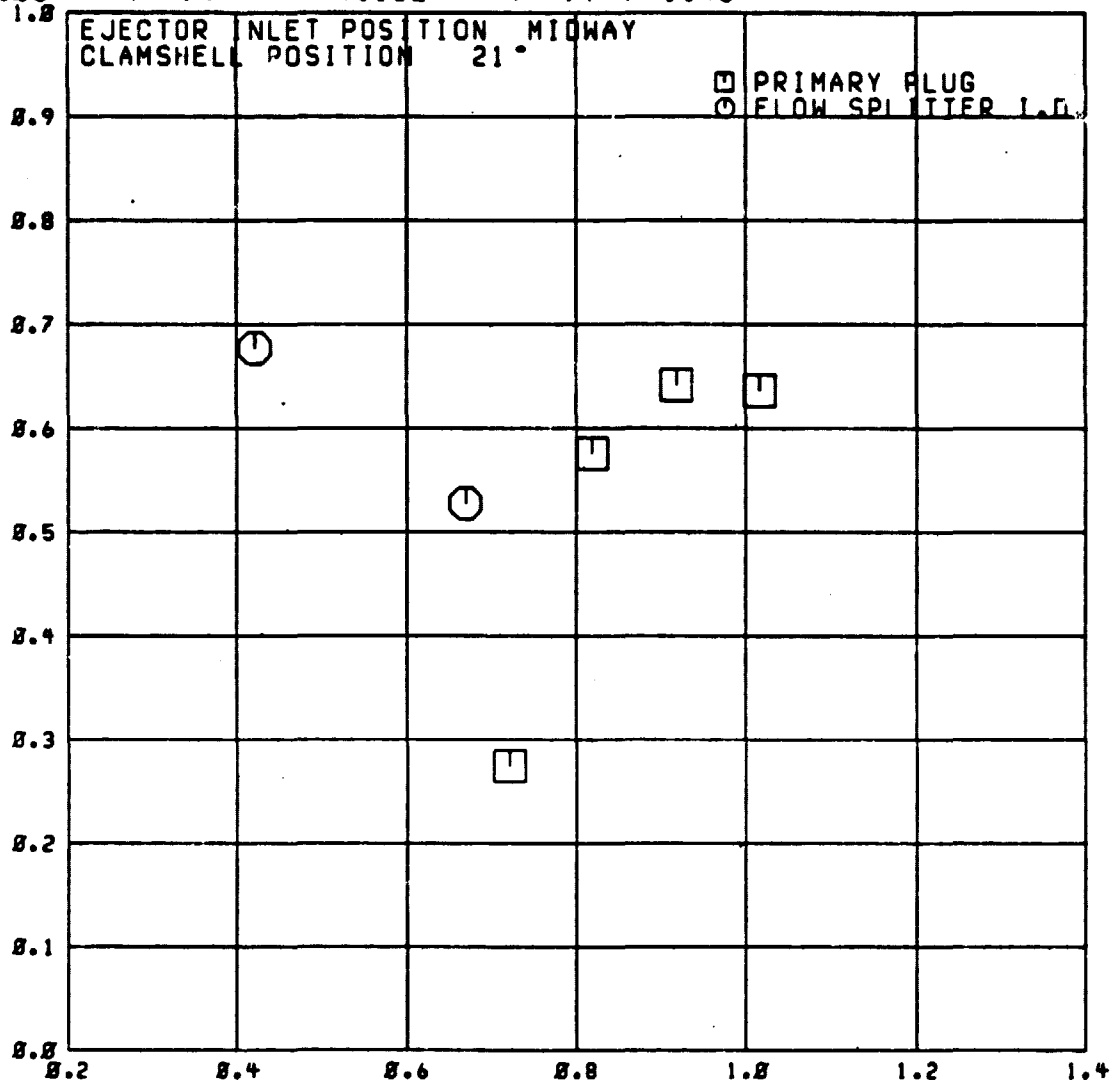
$M_0 = 0.86$

$P_{tr}/P_0 =$

4.132

$P_{tr}/P_{tp} = 1.45$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

Run 23

RDG=1438

C3

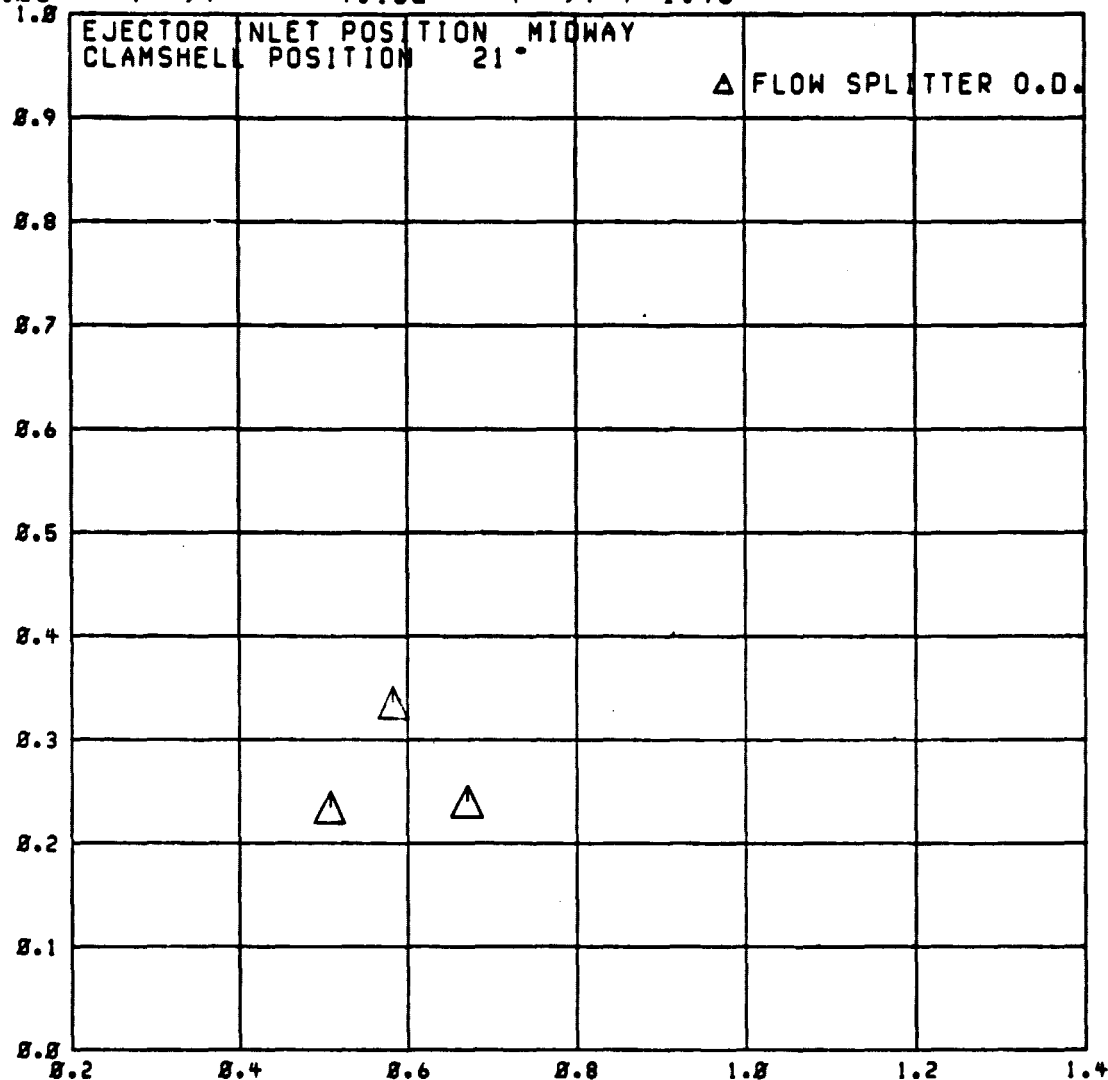
# PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.86$

$P_{tr}/P_{os} = 4.132$

$P_{tr}/P_{tp} = 1.45$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_t/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

RUN 23

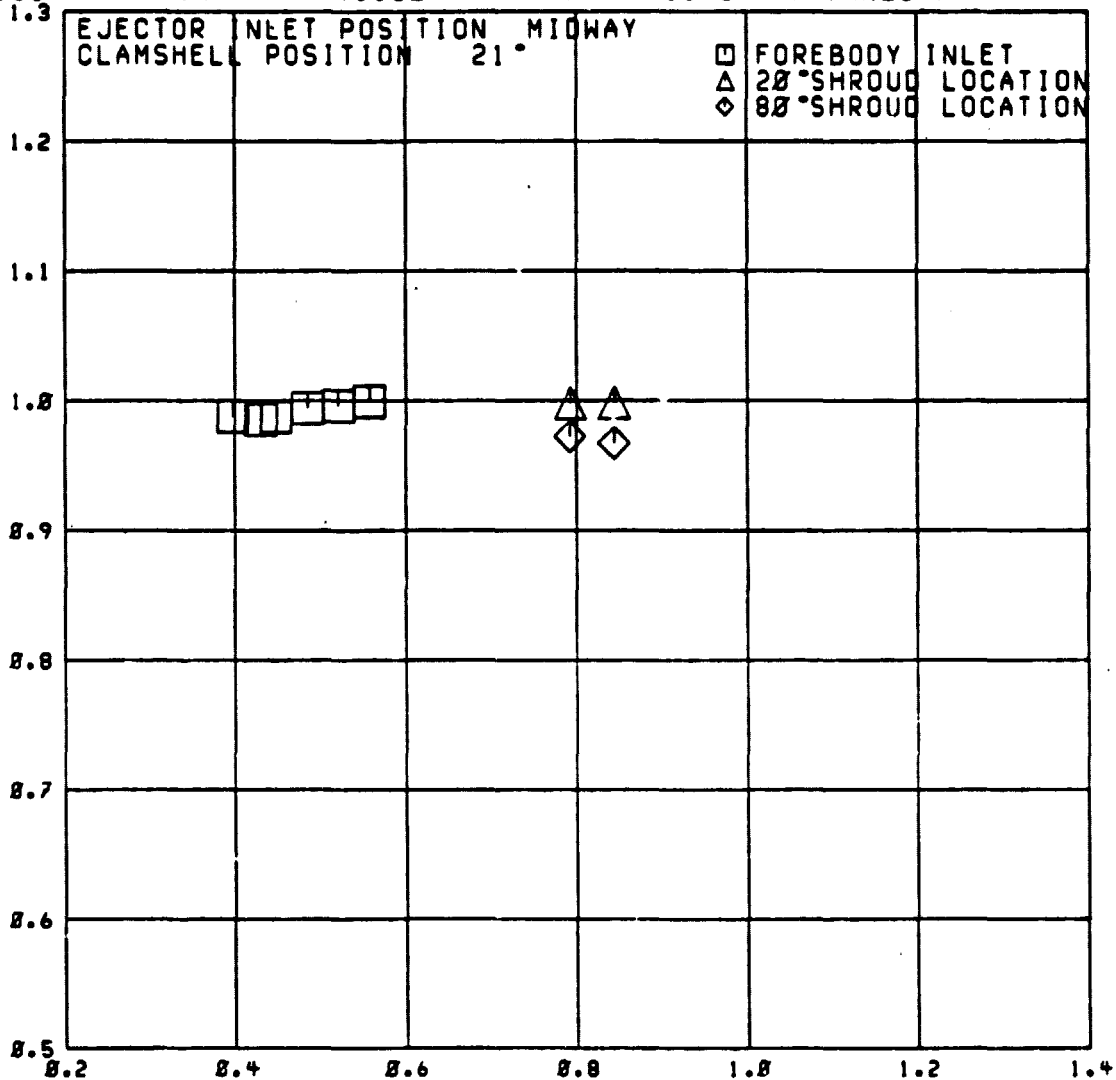
RDG=1430

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.86$      $P_{tr}/P_0 = 4.132$      $P_{tr}/P_{tr0} = 1.45$  AT TAKEOFF

LOCAL TO AMBIENT STATIC PRESSURE RATIO,  $P/P_0$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

ROG. 1430-1468

C3

TAKEOFF

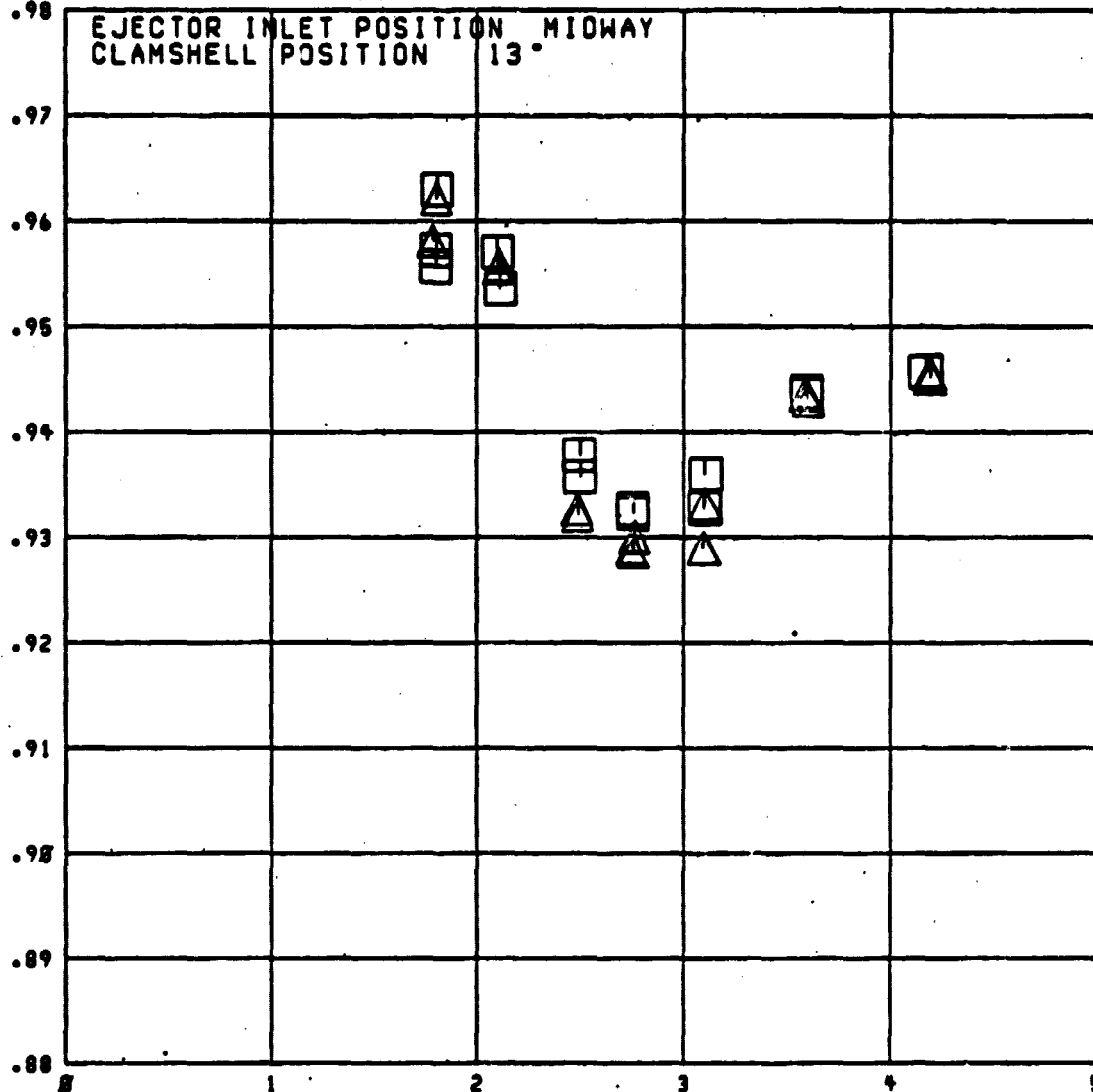
RUN 24

M0=8

M = 8.84

$P_{t0}/P_{t\infty} = \square = 1.46$   
 $\Delta = 1.78$

NOZZLE GROSS THRUST COEFFICIENT, CFP1



FAN NOZZLE PRESSURE RATIO, PTF/PO

RDG. 1469-1498

C3

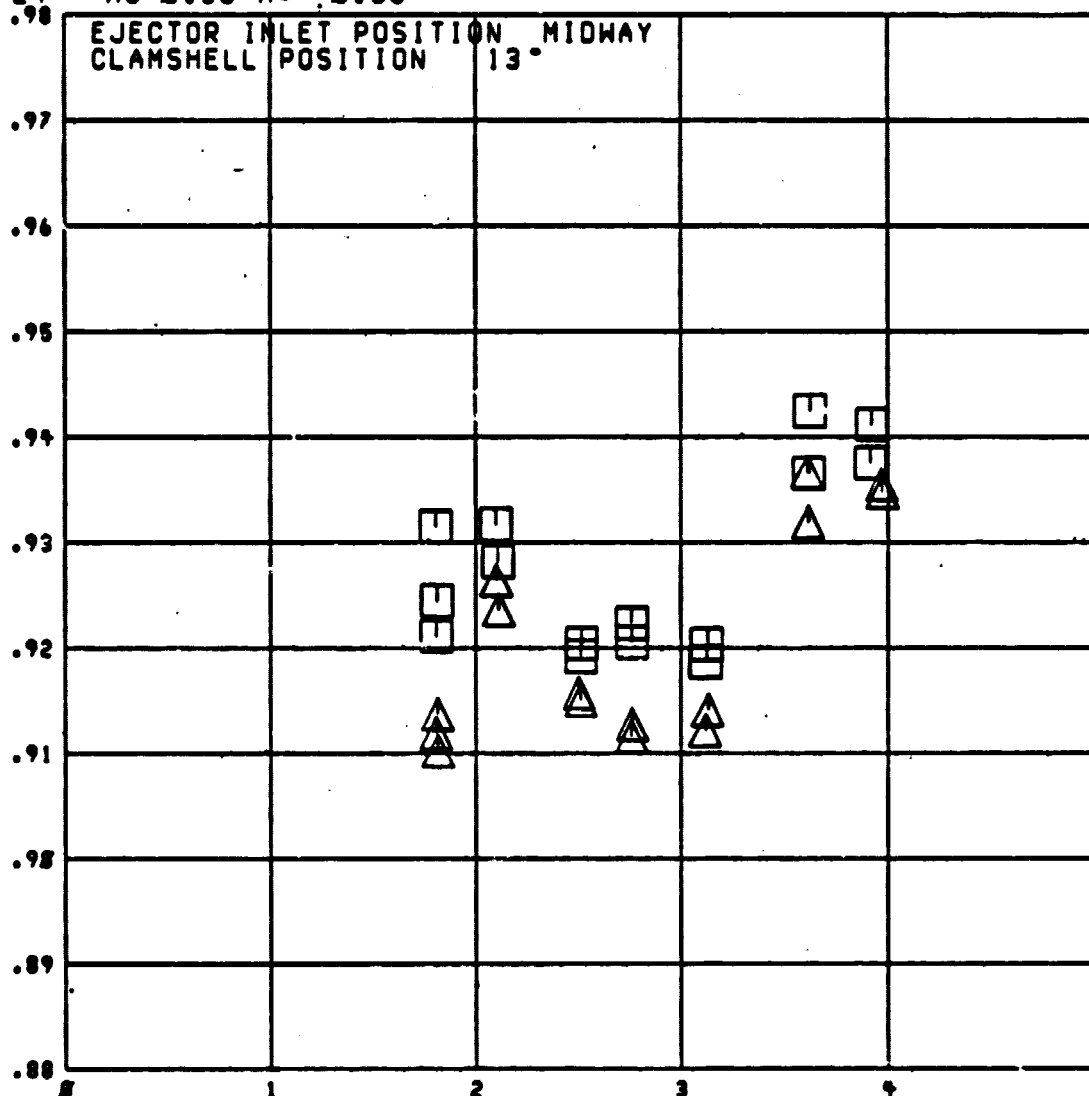
TAKEOFF

RUN 24

MO=0.36 M=0.36

$P_{1C}/P_{1D} = \square = 1.46$   
 $\Delta = 1.78$

NOZZLE GROSS THRUST COEFFICIENT, CFP1



FAN NOZZLE PRESSURE RATIO, PTF/PO

ROG 1438-1468

C3

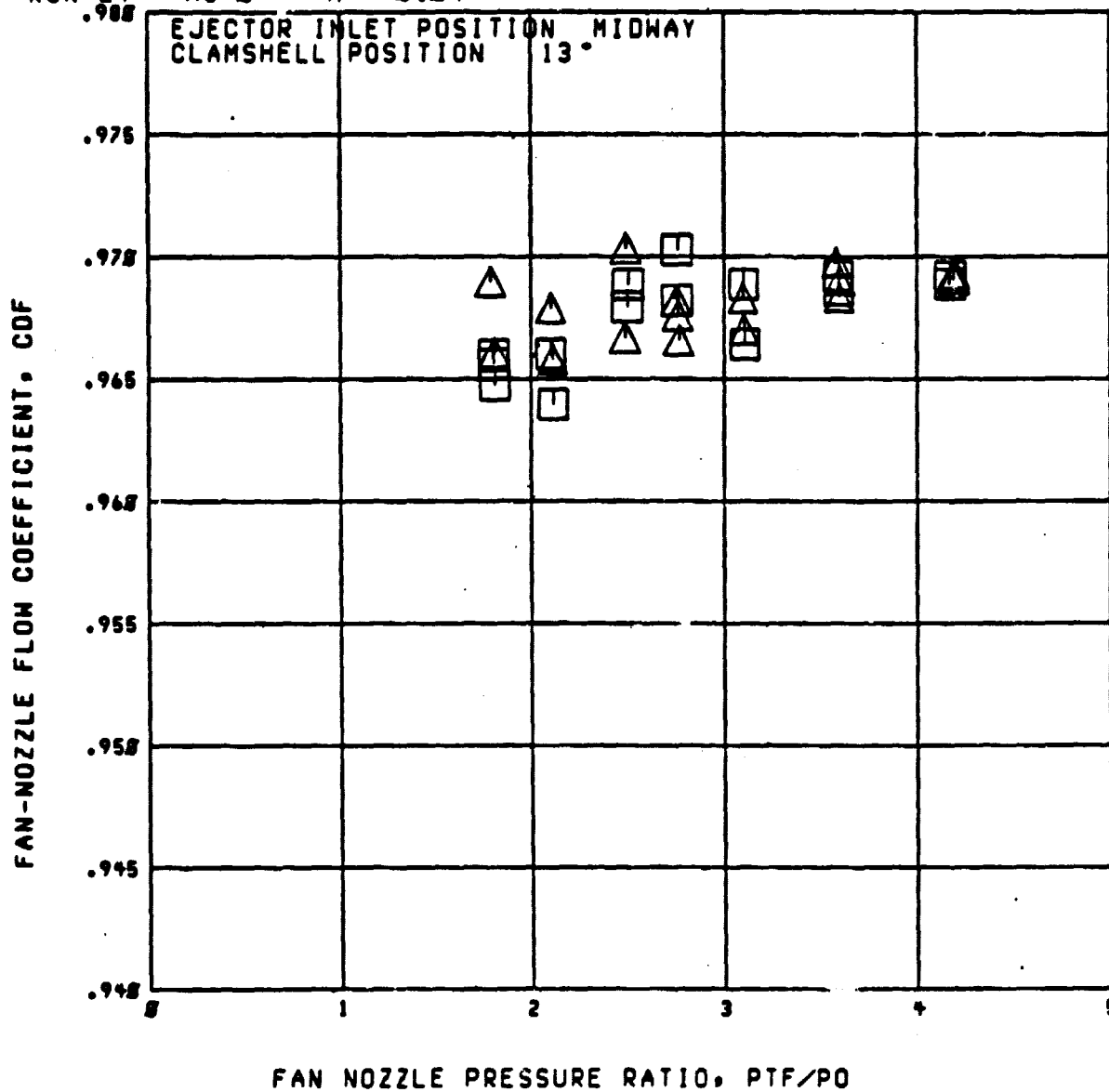
TAKEOFF

RUN 24

$M_0 = 0$

$M = 0.84$

$P_{t0}/P_{t\infty} = \square = 1.46$   
 $\Delta = 1.78$



ROG. 1469-1498

C3

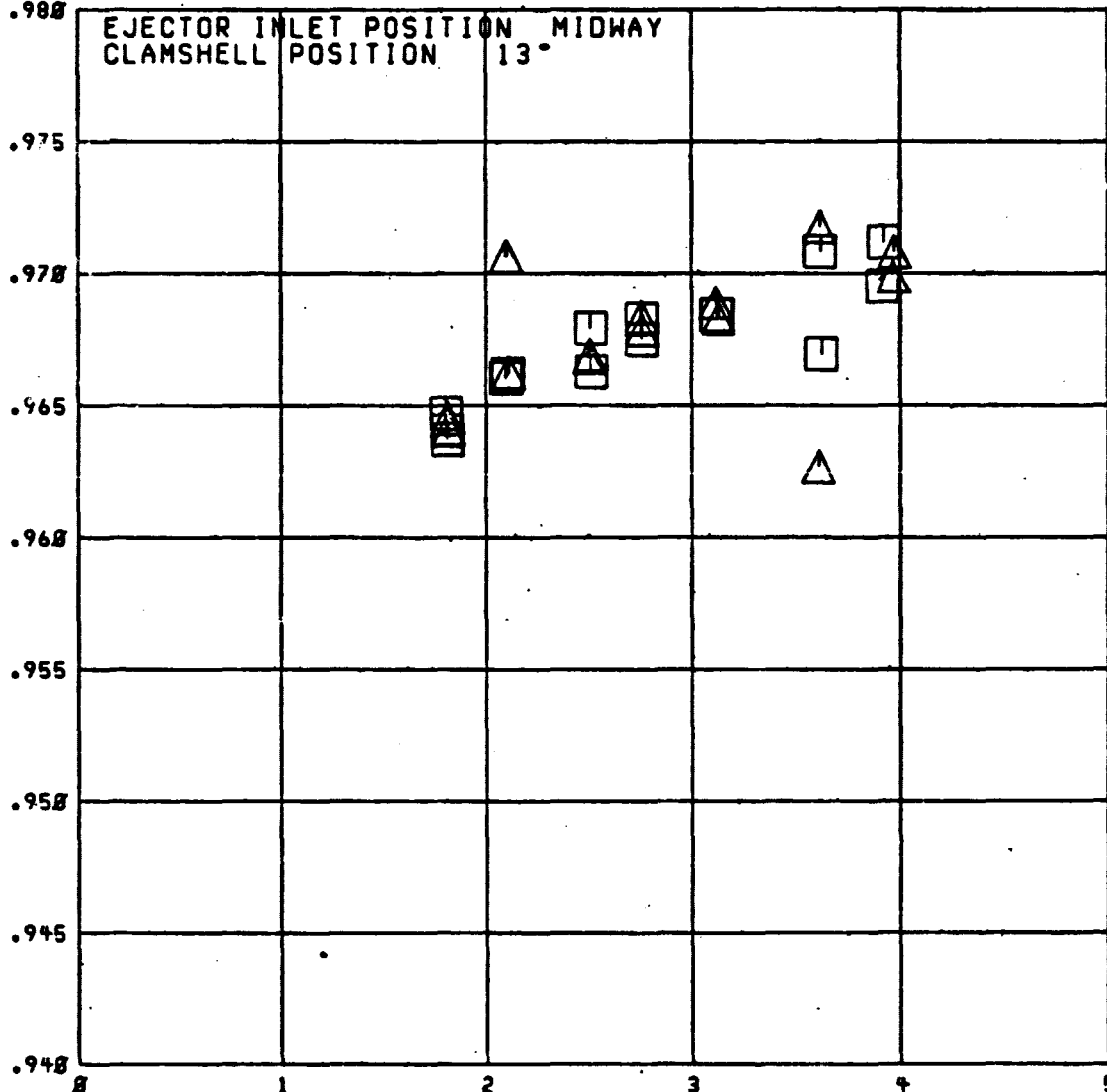
TAKEOFF

RUN 24

MO=0.36 M=0.36

$P_{tr}/P_{tp} = \square = 1.46$   
 $\Delta = 1.78$

FAN-NOZZLE FLOW COEFFICIENT, CDF



FAN NOZZLE PRESSURE RATIO, PTF/PO

ROG. 1438-1468

C3  
TAKEOFF

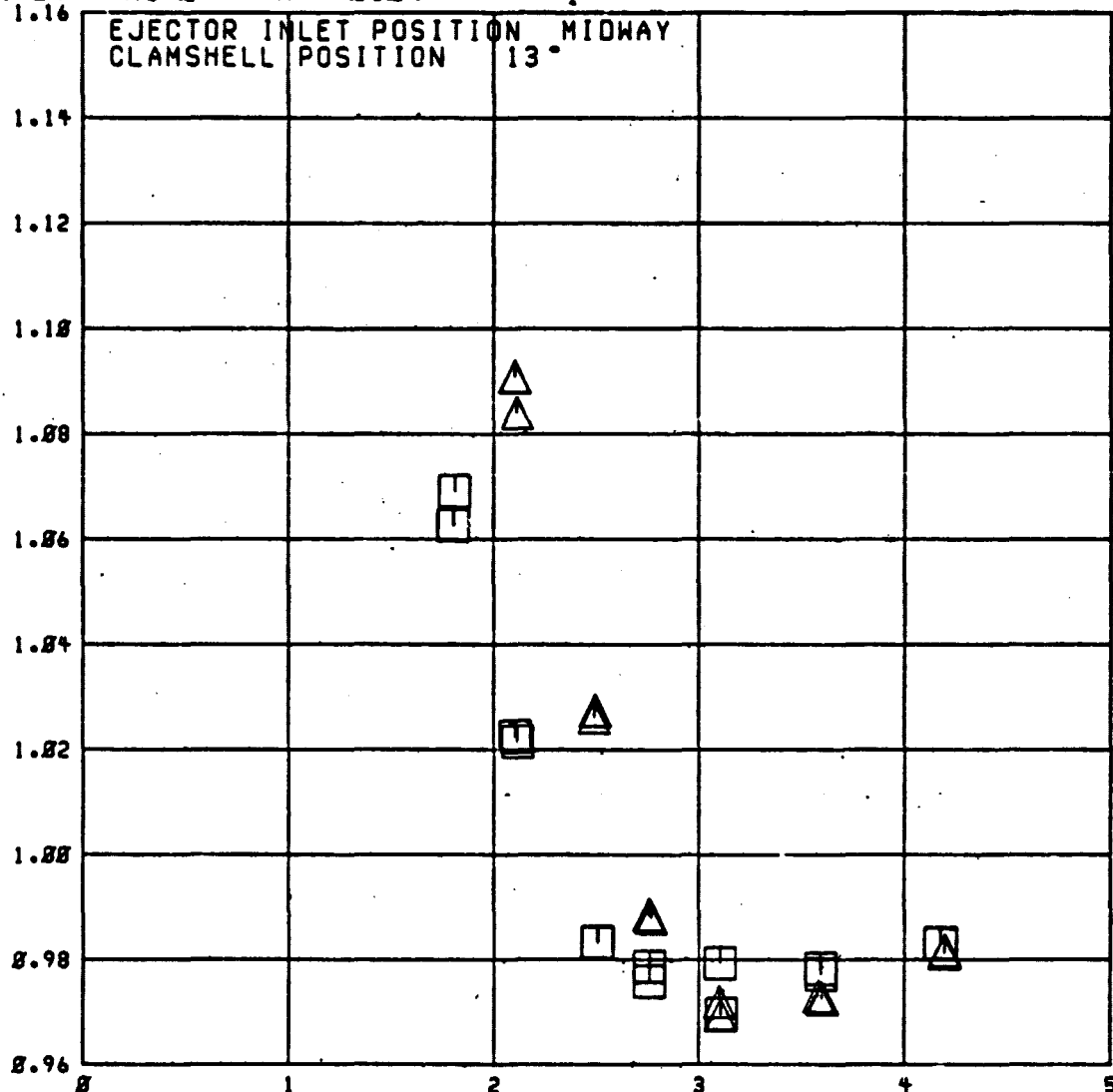
RUN 24

$M_0 = 0$

$M_0 = 0.84$

$P_{tr}/P_{tp} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP



FAN NOZZLE PRESSURE RATIO,  $PTF/PO$



Rdg. 1469-1498

C3

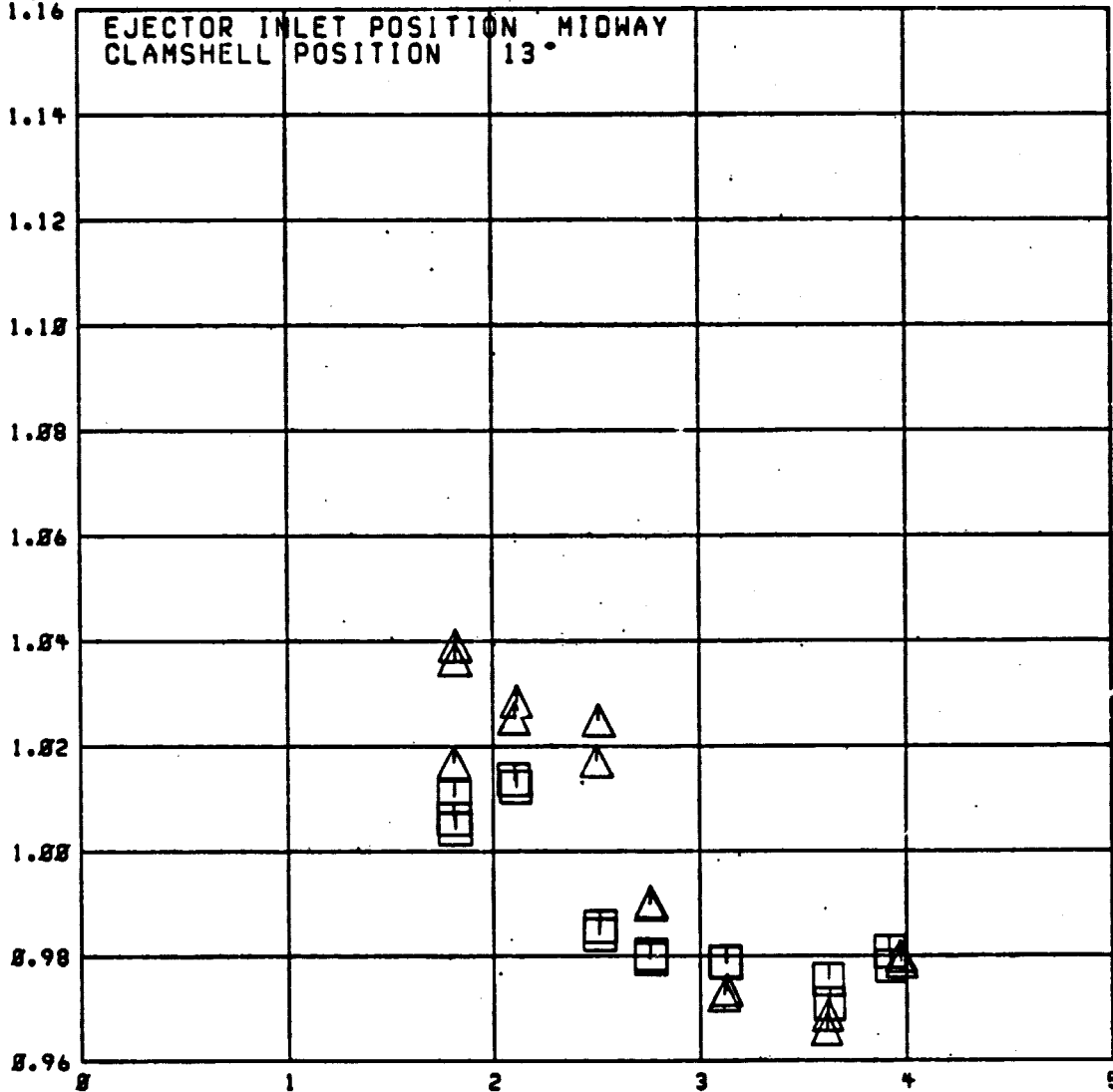
TAKEOFF

RUN 24

$M_0 = 0.36$   $M_e = 0.36$

$P_{tr}/P_{tp} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP



FAN NOZZLE PRESSURE RATIO, PTF/PO

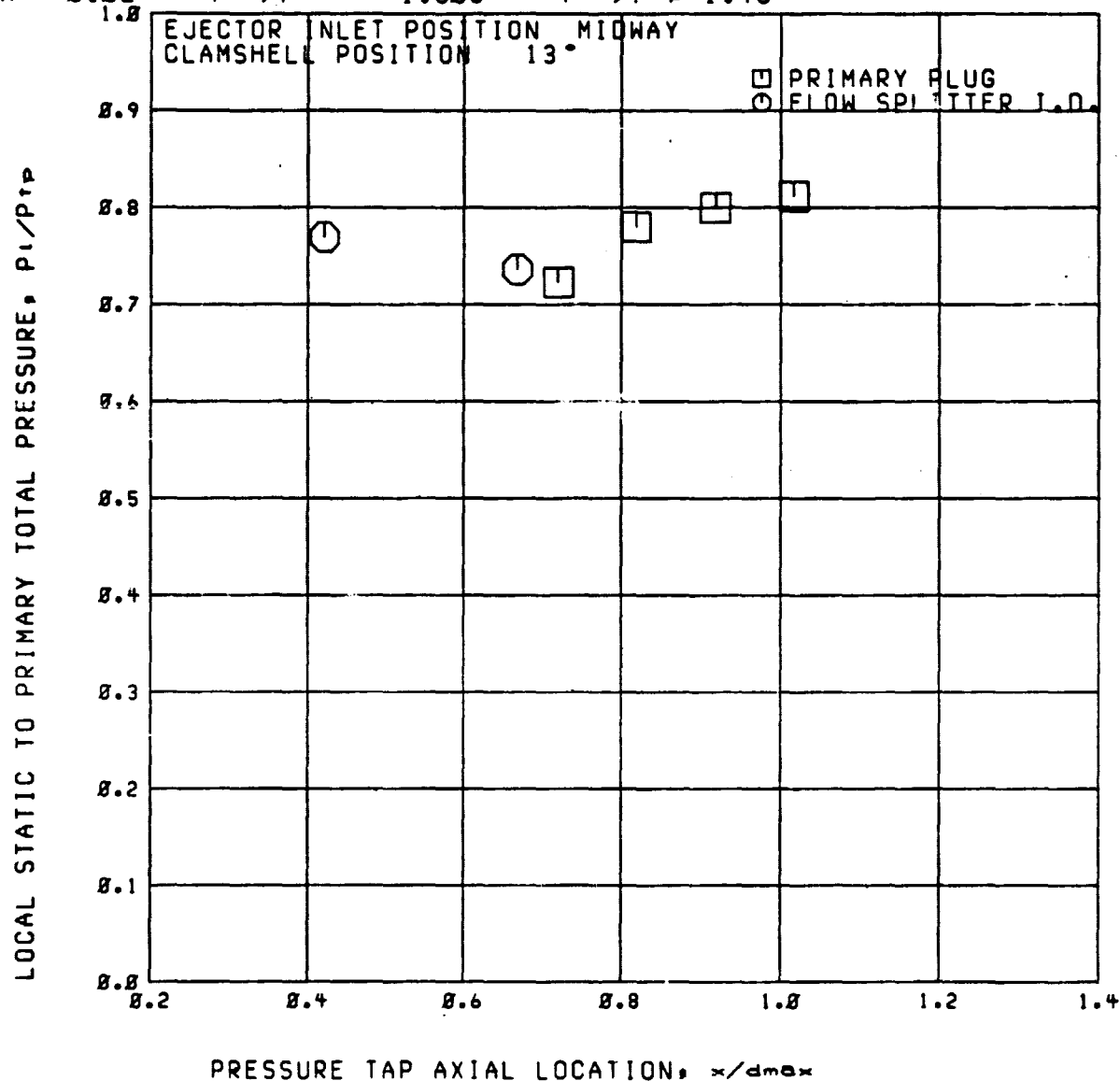
RUN 24

C3

RDG=1455

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.02$   $P_{tr}/P_0 = 1.805$   $P_{tr}/P_{tp} = 1.45$



RUN 24

RDG=1455

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

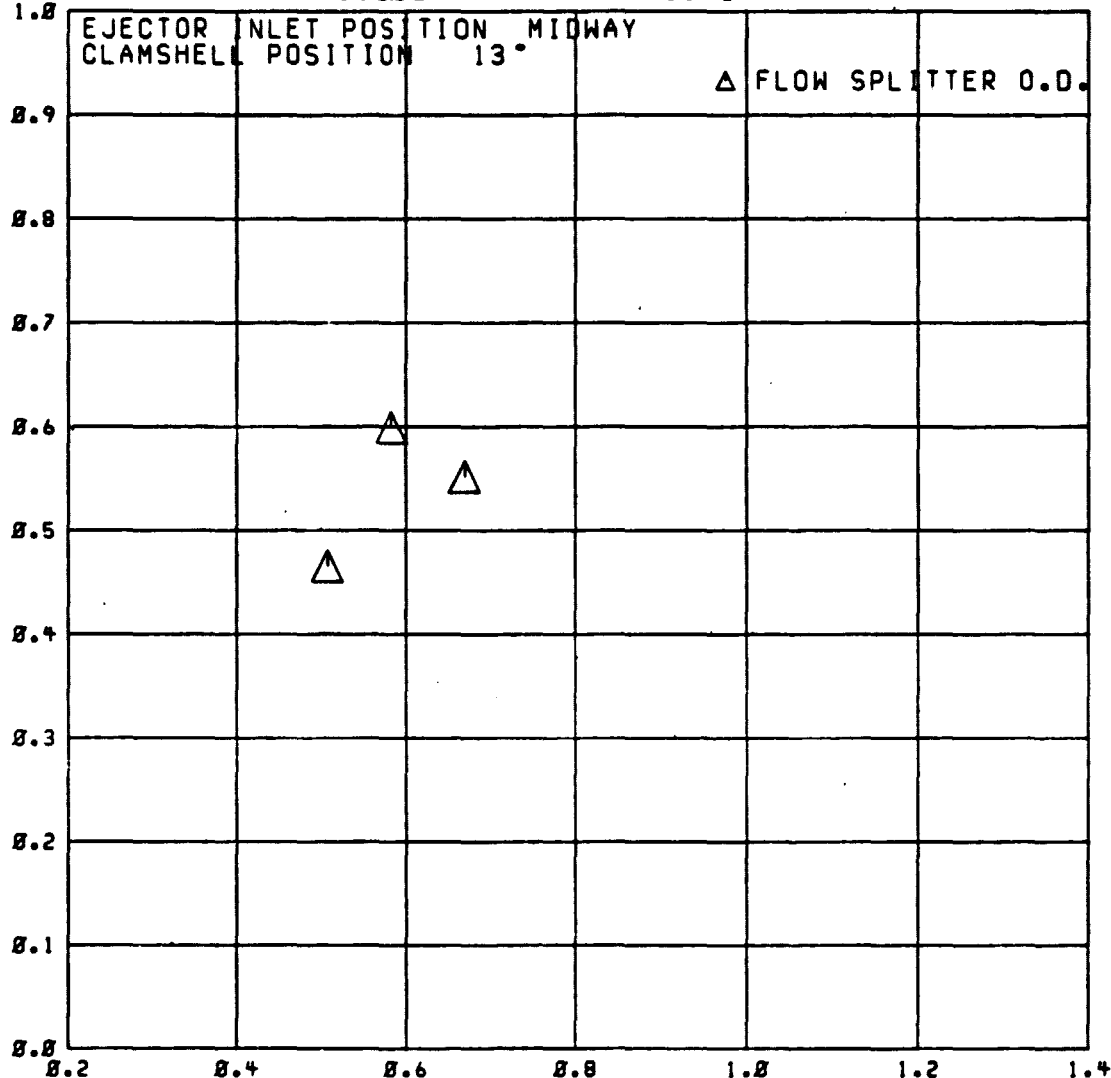
$M_0 = 0.02$

$P_{tr}/P_0 =$

1.805

$P_{tr}/P_{tp} = 1.45$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

ORIGINAL PAGE 1  
OF 1000 CUBIC

RUN 24

RDG=1455

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

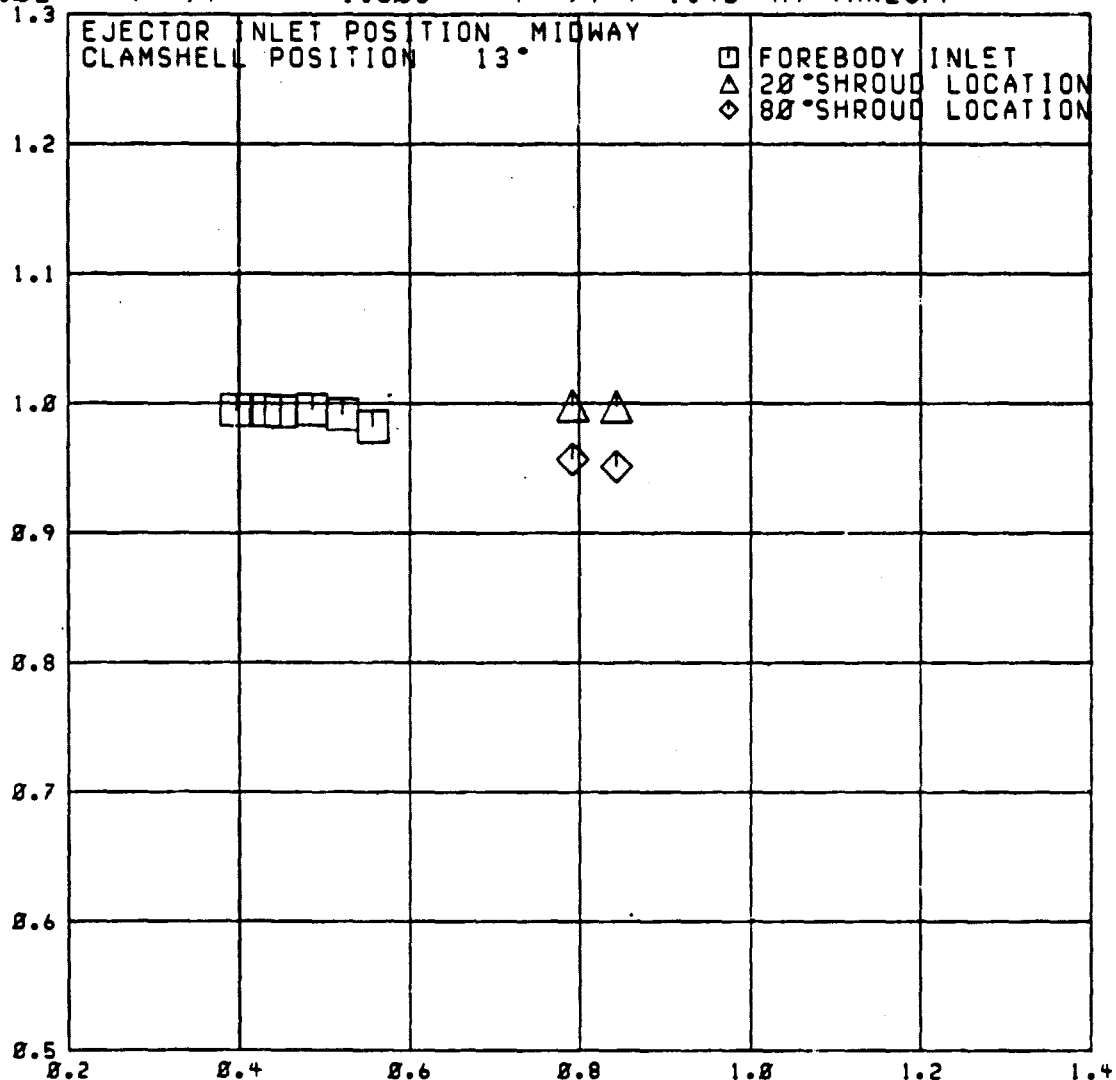
$M_o = 0.02$

$P_{tr}/P_o =$

1.805

$P_{tr}/P_{tr} = 1.45$  AT TAKEOFF

LOCAL TO AMBIENT STATIC PRESSURE RATIO,  $P_i/P_o$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

RUN 24

RDG=1456

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

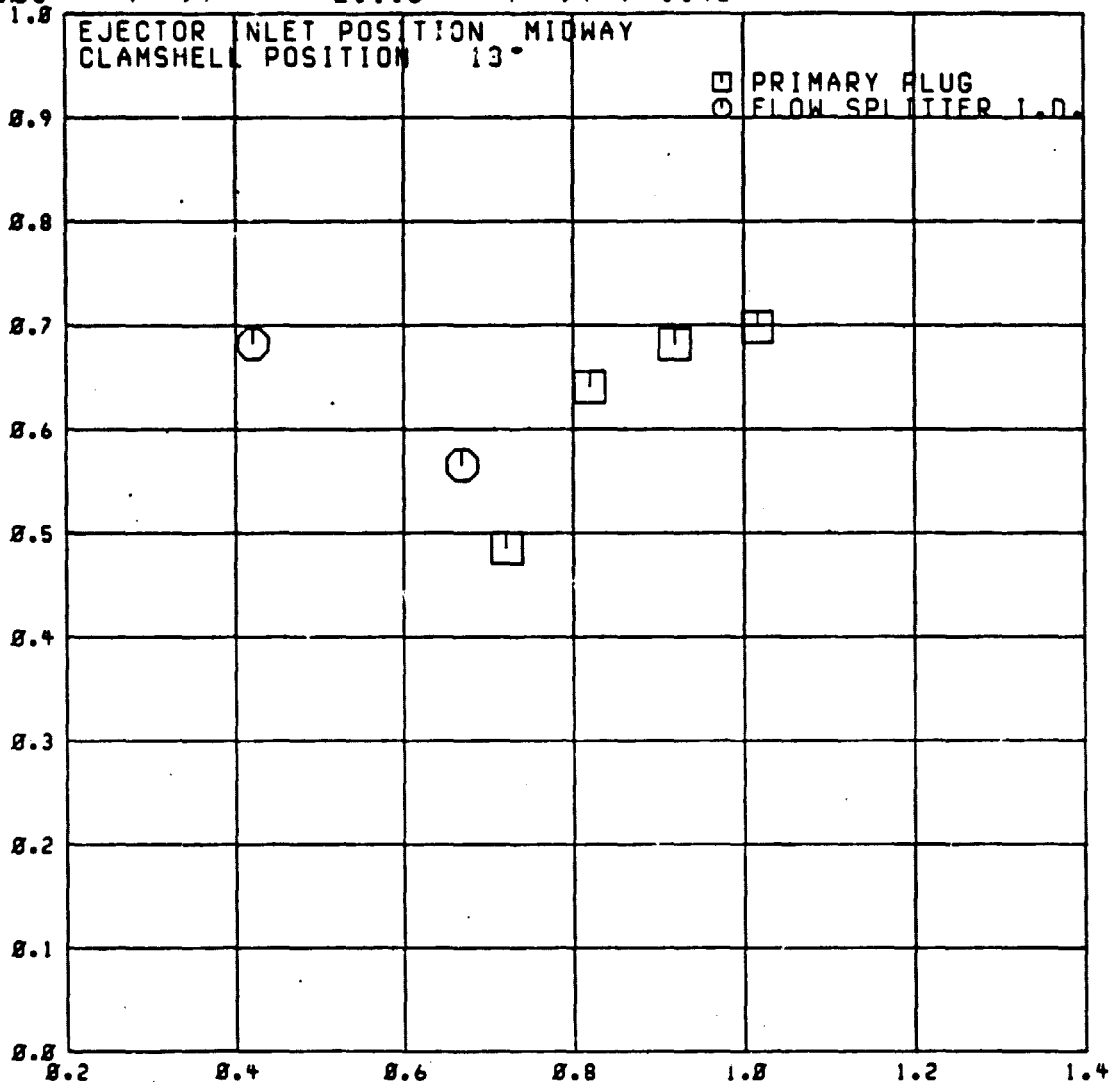
$M_0 = 0.83$

$P_{tr}/P_{0\infty} =$

2.118

$P_{tr}/P_{tp} = 1.43$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

Run 24

RDG=1456

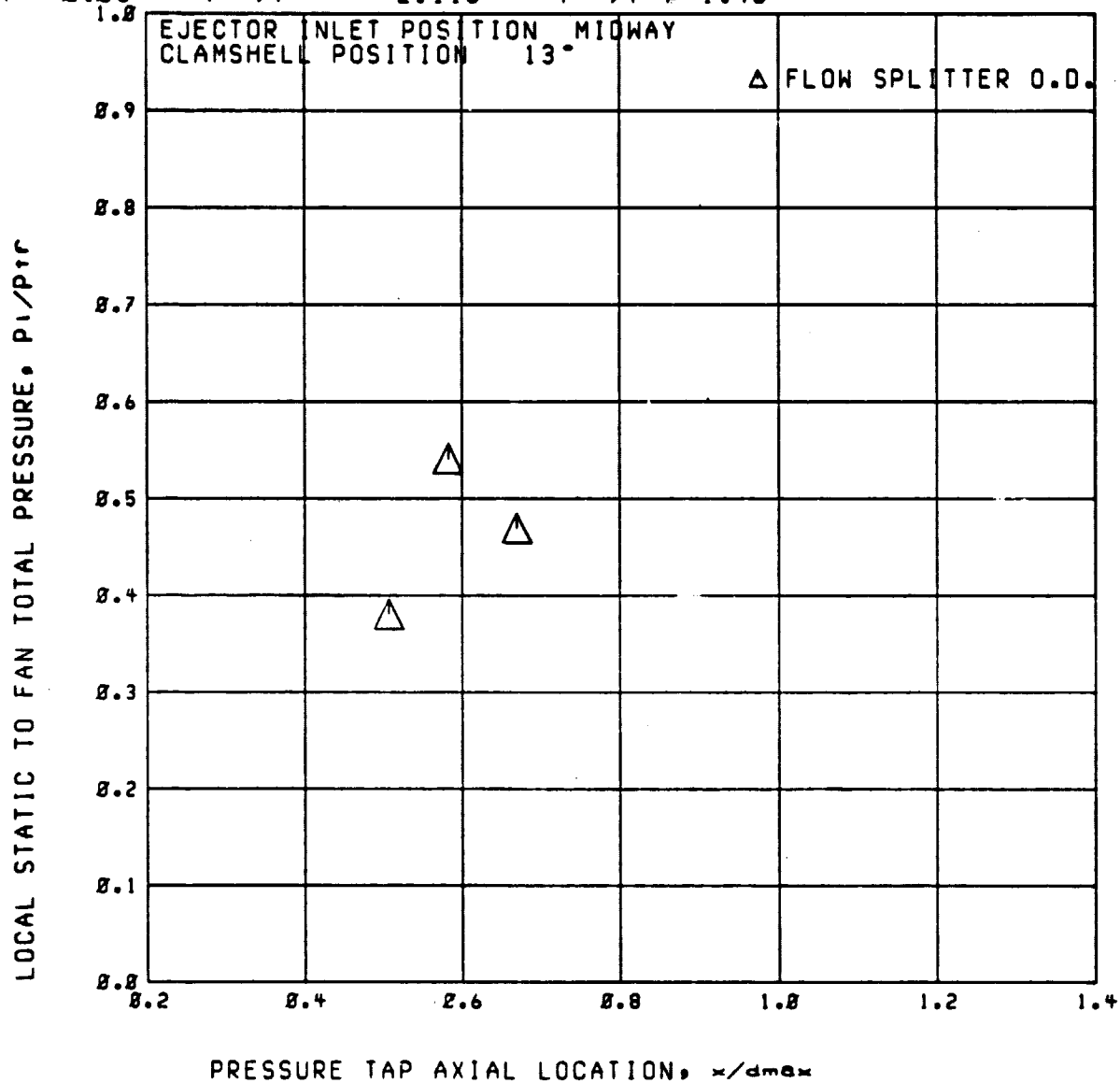
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.03$

$P_{tr}/P_0 = 2.118$

$P_{tr}/P_{tr} = 1.43$



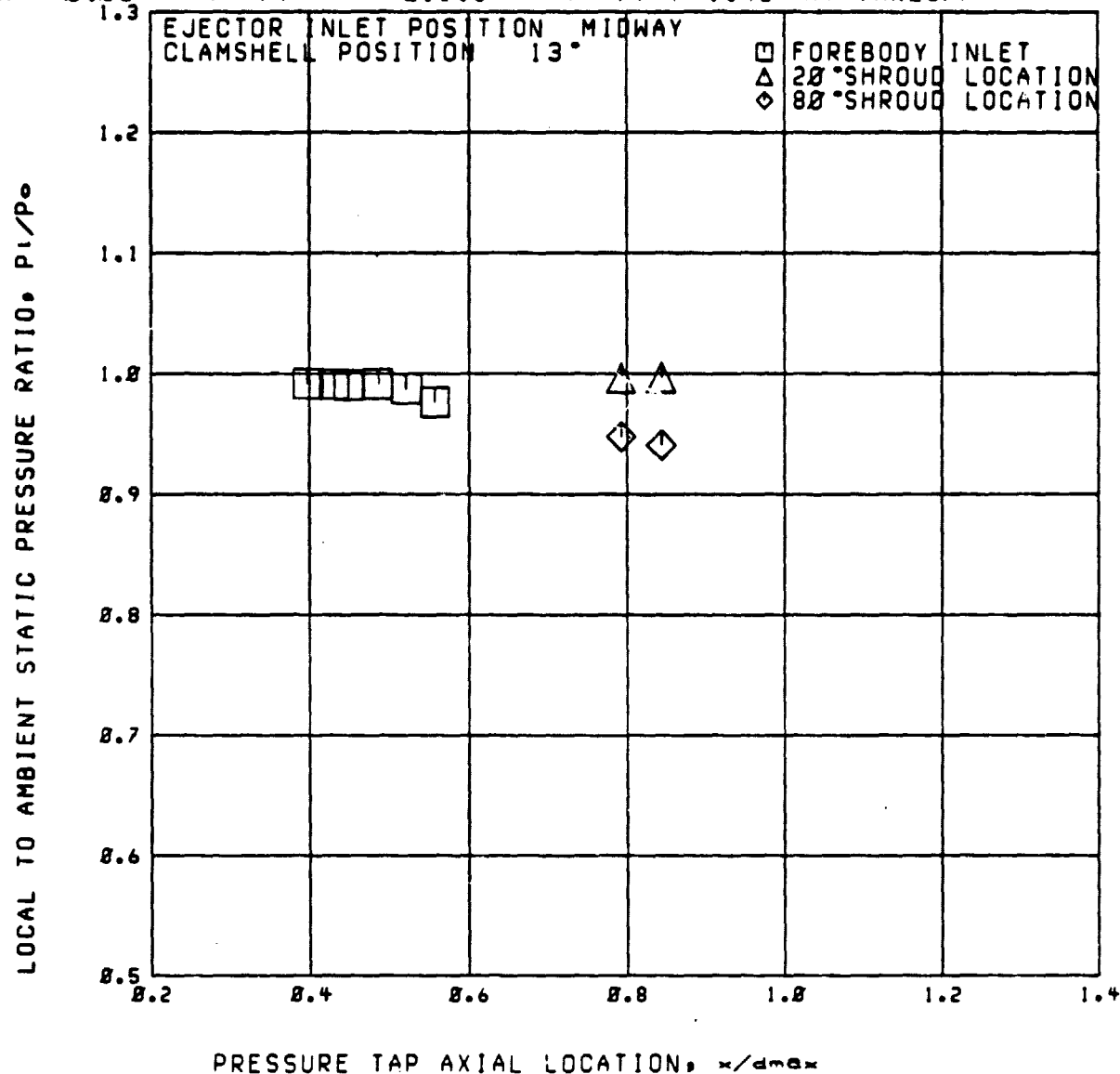
RUN 24

ROG=1456

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.83$   $P_{tr}/P_o = 2.118$   $P_{tr}/P_{tr} = 1.43$  AT TAKEOFF



RUN 24

C3

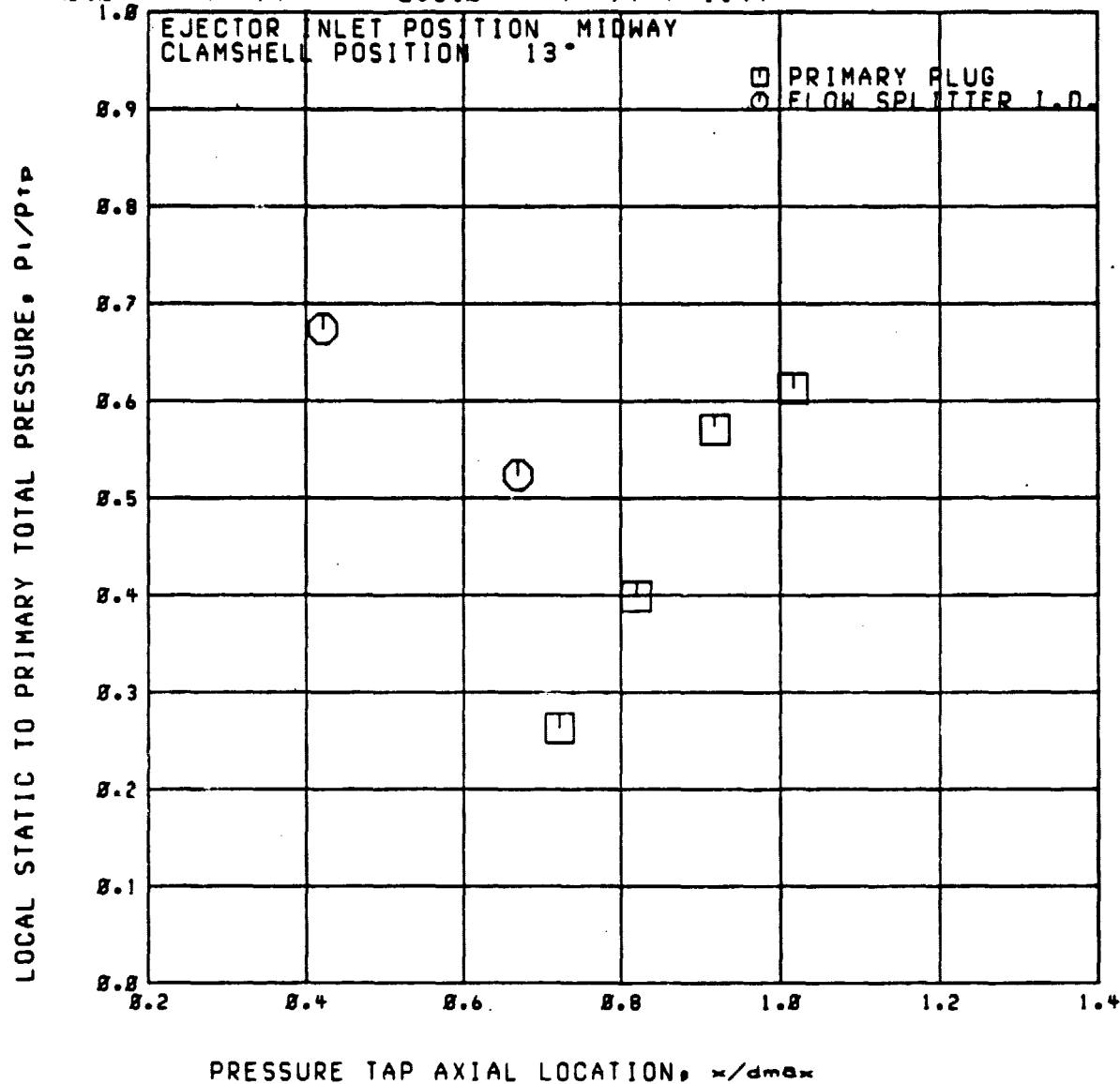
RDG=1457

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.04$

$P_{tr}/P_0 = 2.518$

$P_{tr}/P_{tr} = 1.44$



ORIGINAL PAGE 1  
OF FOUR QUALITY



Run 24

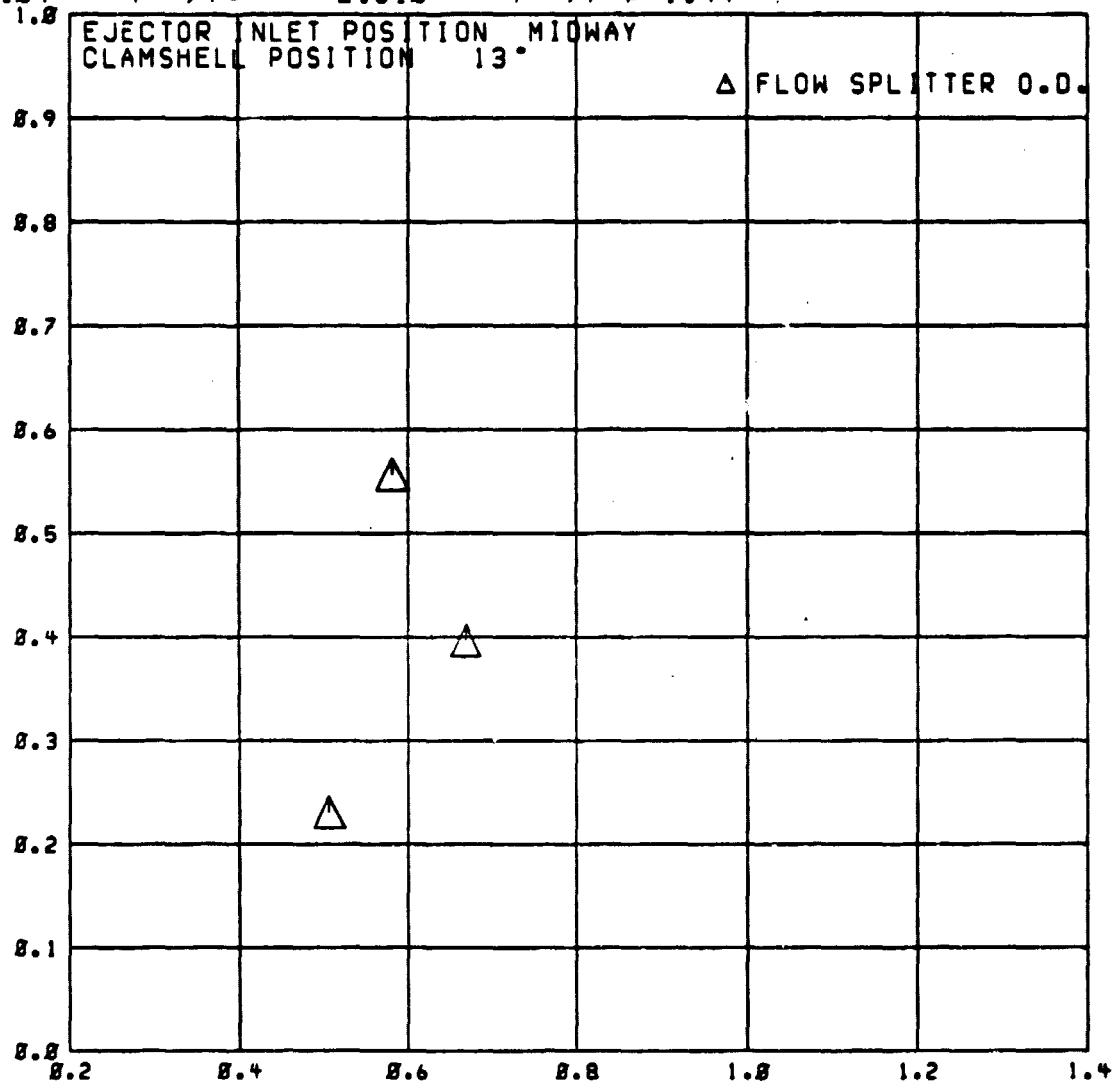
ROG=1457

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.84$   $P_{tr}/P_0 = 2.518$   $P_{tr}/P_{tr} = 1.44$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_1/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

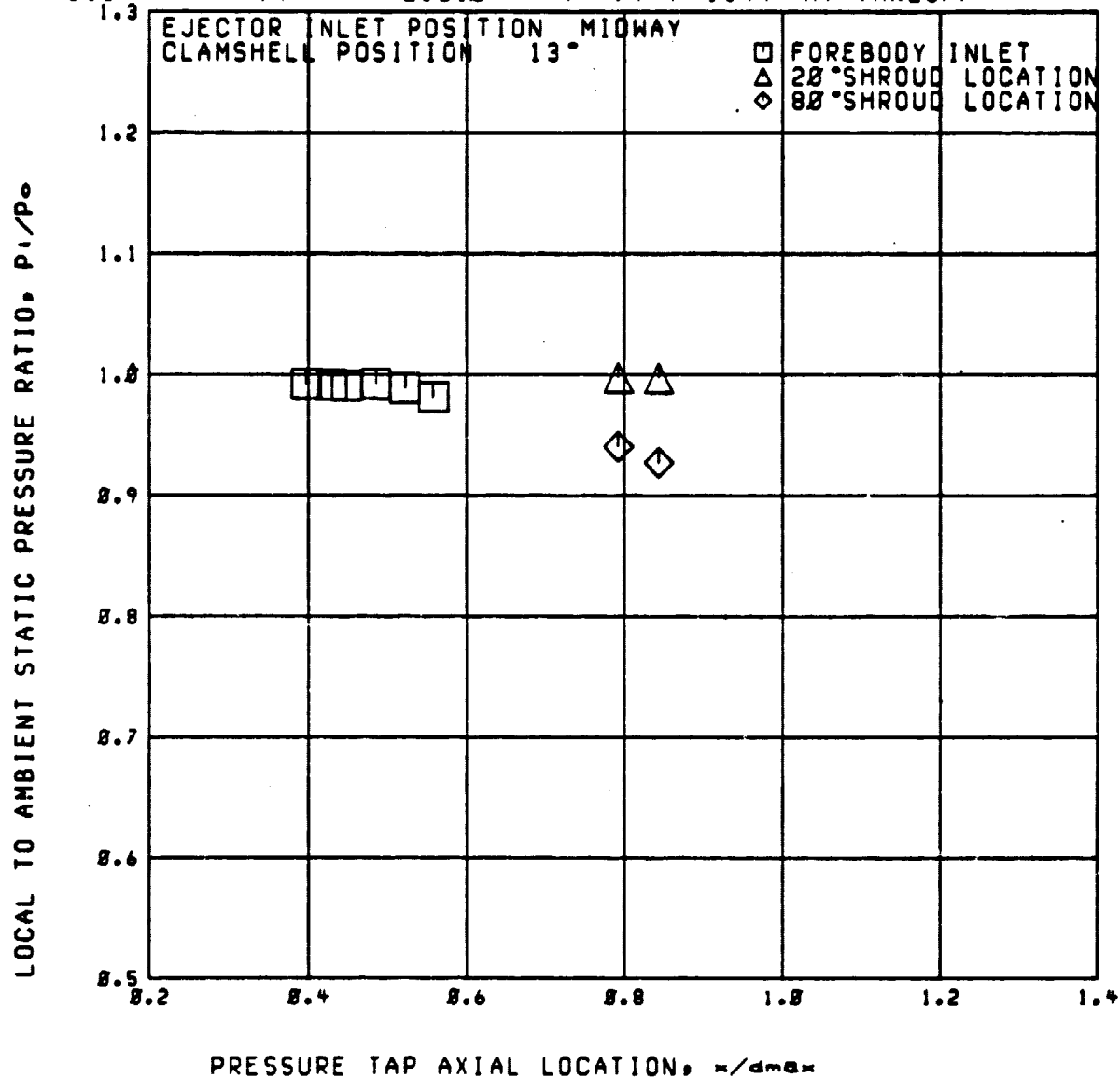
RUN 24

RDG=1457

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.84$   $P_{tr}/P_0 = 2.518$   $P_{tr}/P_{tp} = 1.44$  AT TAKEOFF



Run 24

RDG=1458

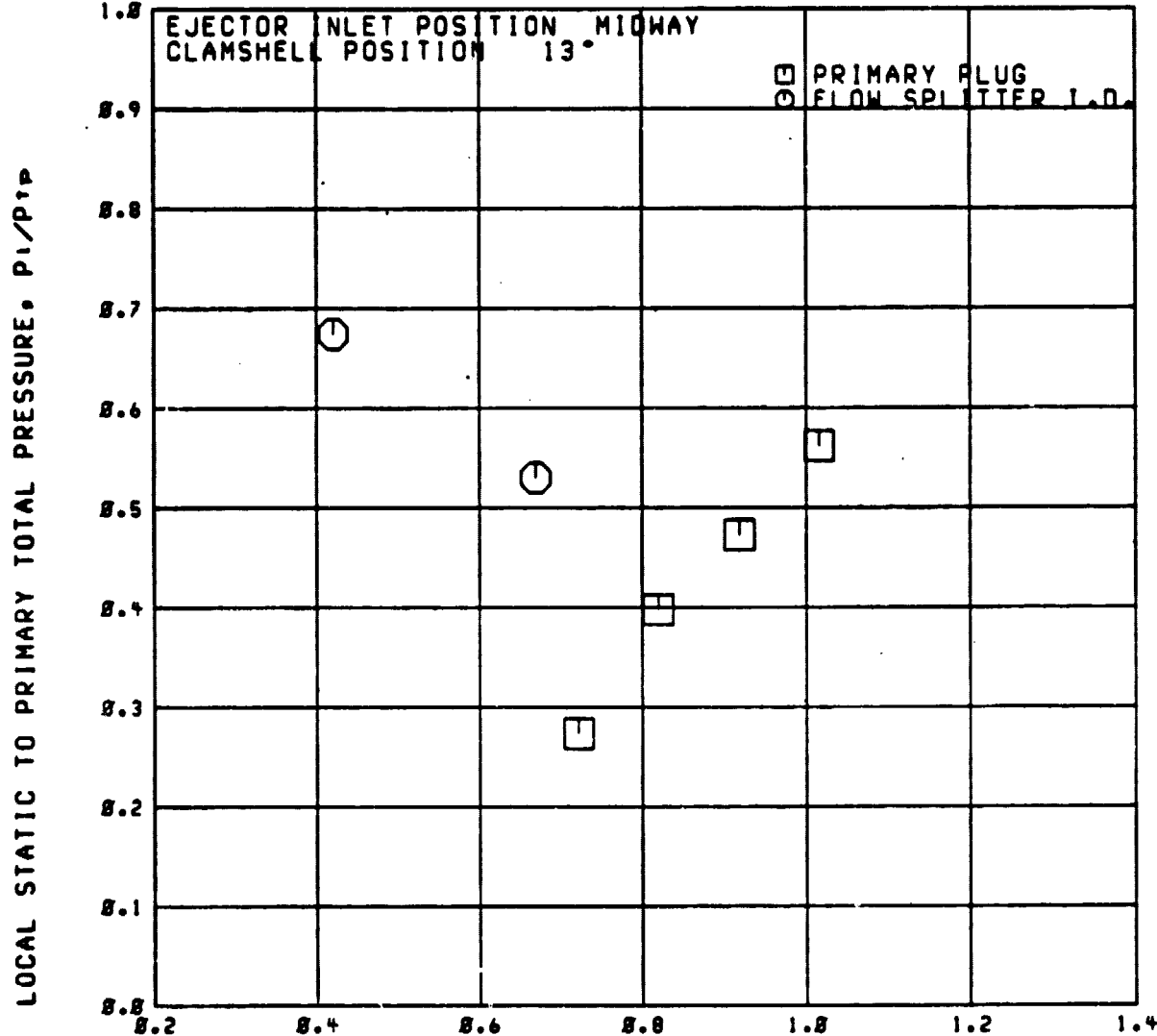
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.85$

$P_{1c}/P_{0c} = 2.762$

$P_{1c}/P_{1p} = 1.45$



PRESSURE TAP AXIAL LOCATION,  $x/d_{no}$

RUN 24

RDG=1458

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

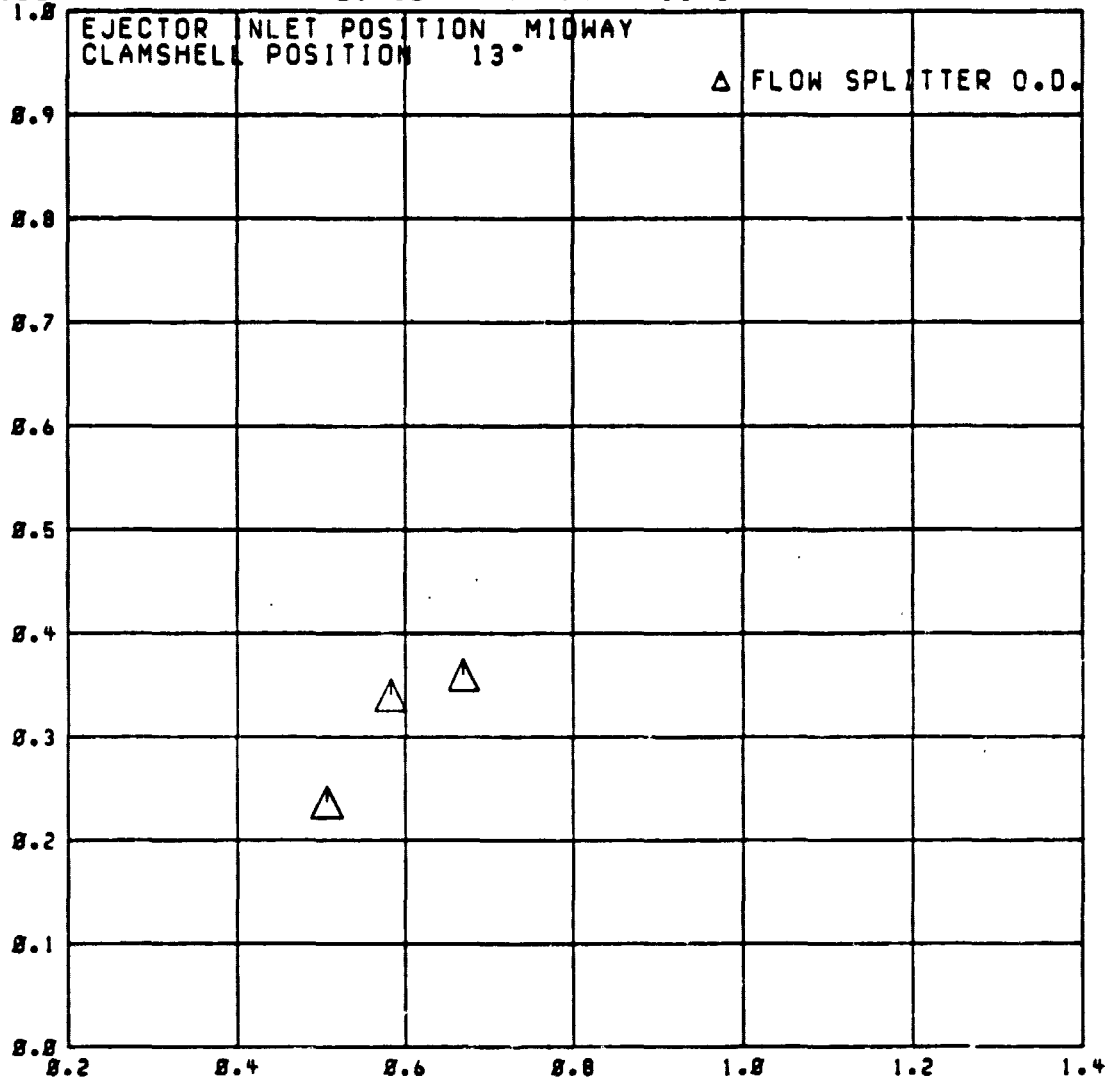
$M = 0.25$

$P_{tr}/P_{os} =$

2.762

$P_{tr}/P_{tp} = 1.45$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

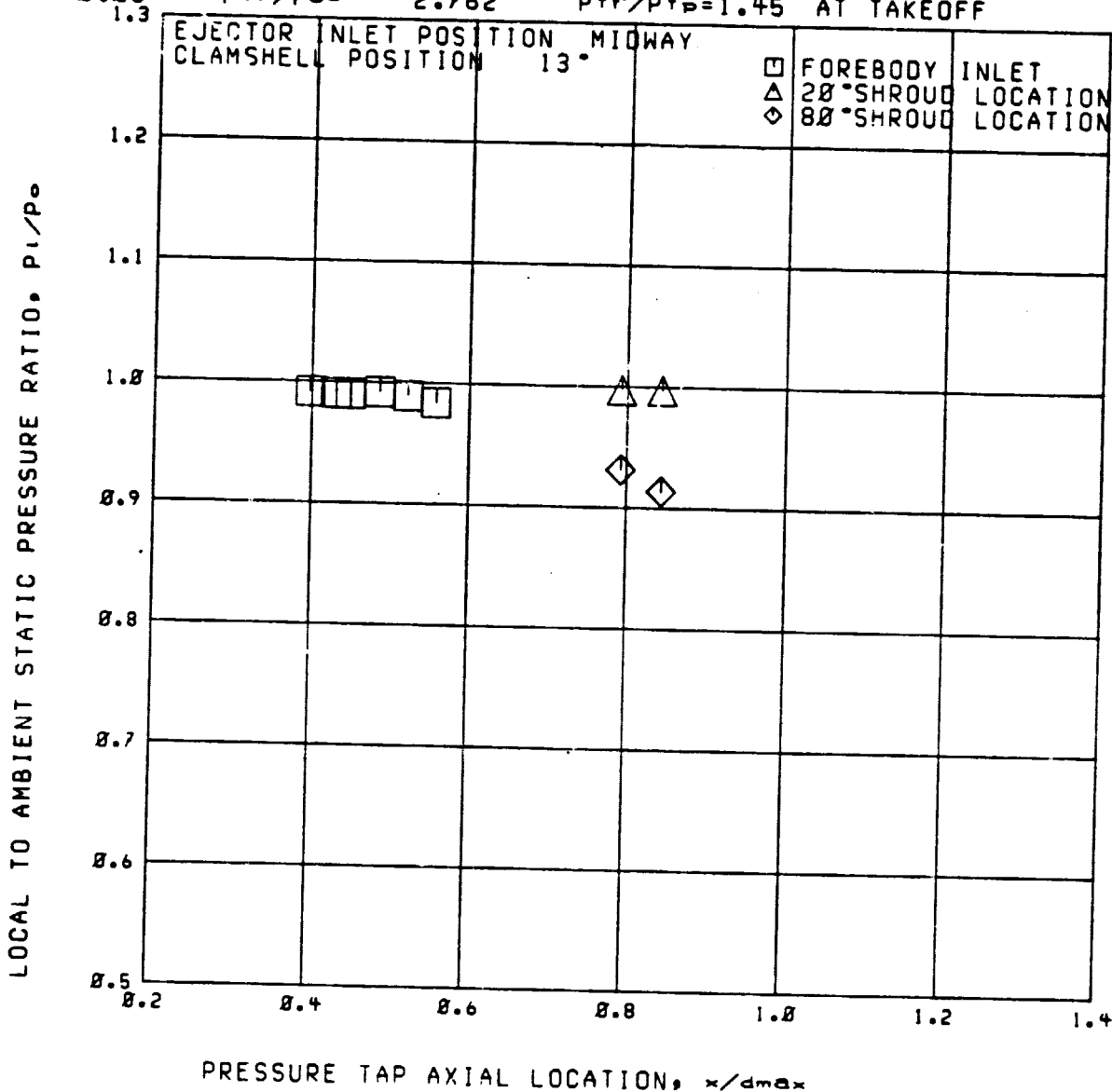
RUN 24

RDG=1458

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.85$   $P_{tr}/P_o = 2.762$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



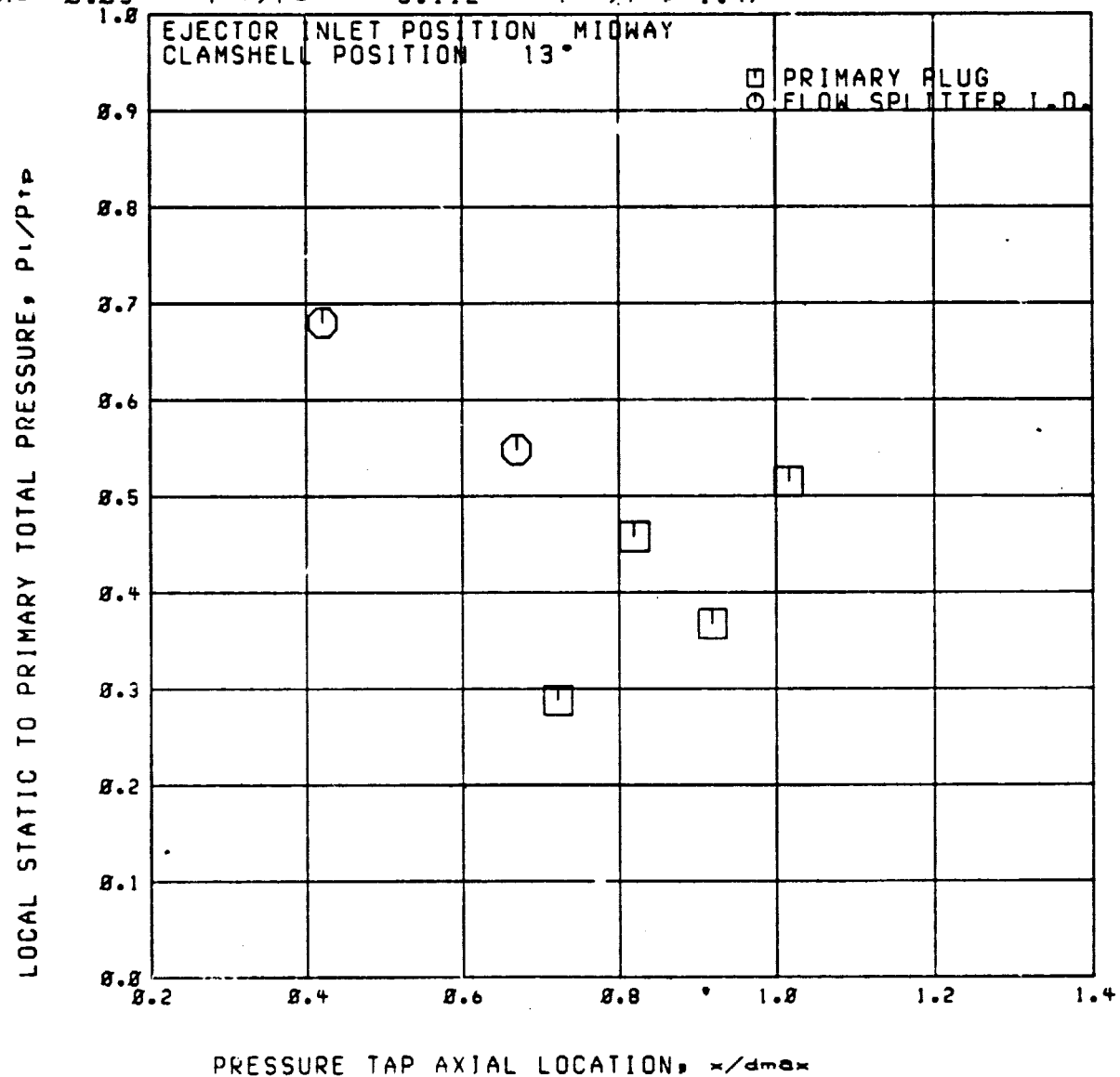
Run 24

C3

ROG=1459

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.85$   $P_{tr}/P_0 = 3.112$   $P_{tr}/P_{tr} = 1.47$



Run 24

RDG=1459

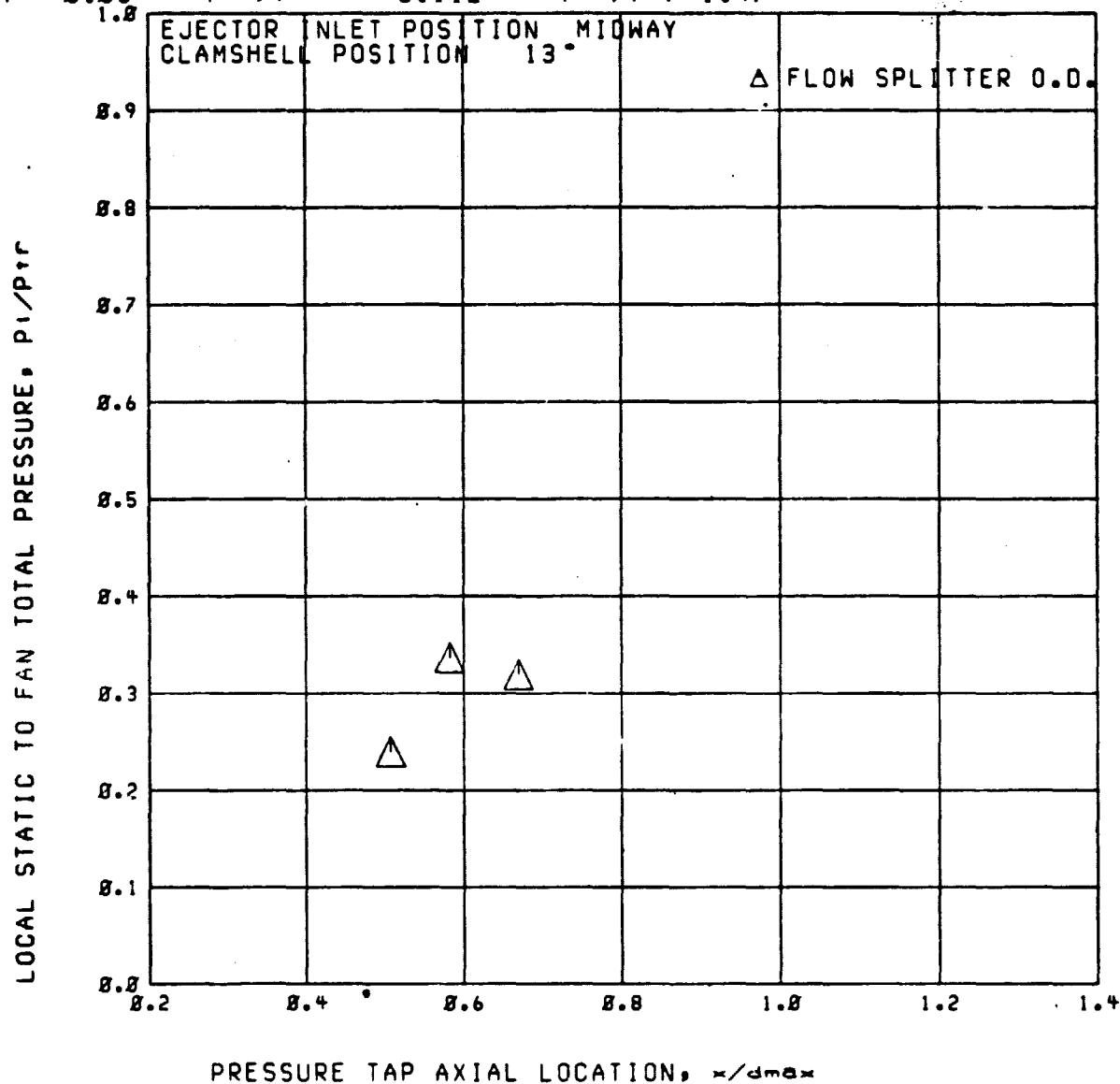
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$

$P_{tr}/P_0 = 3.112$

$P_{tr}/P_{tp} = 1.47$



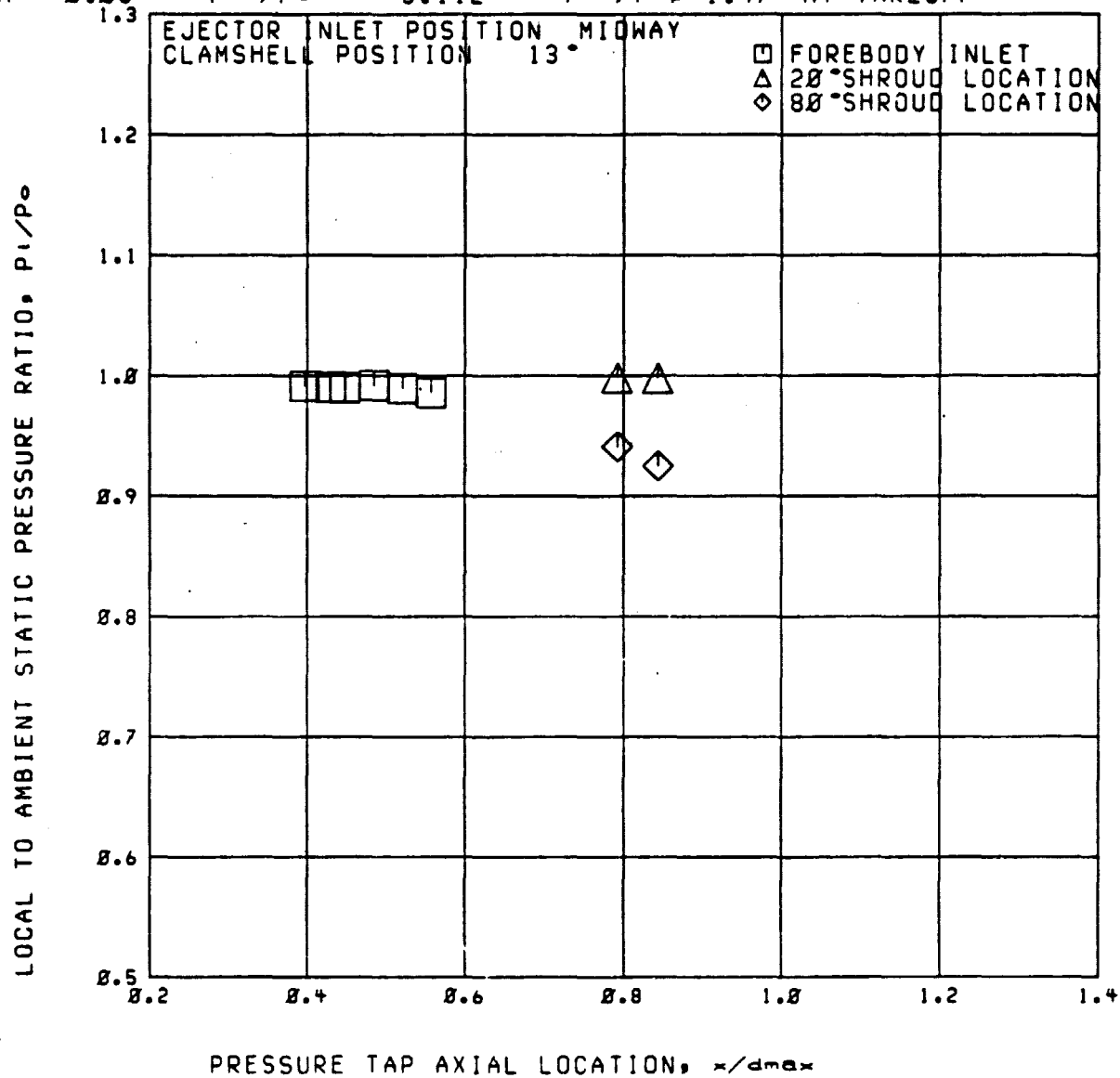
Run 24

RDG=1459

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.05$   $P_{tr}/P_o = 3.112$   $P_{tr}/P_{tp} = 1.47$  AT TAKEOFF





RUN 24

RDG=1460

C3

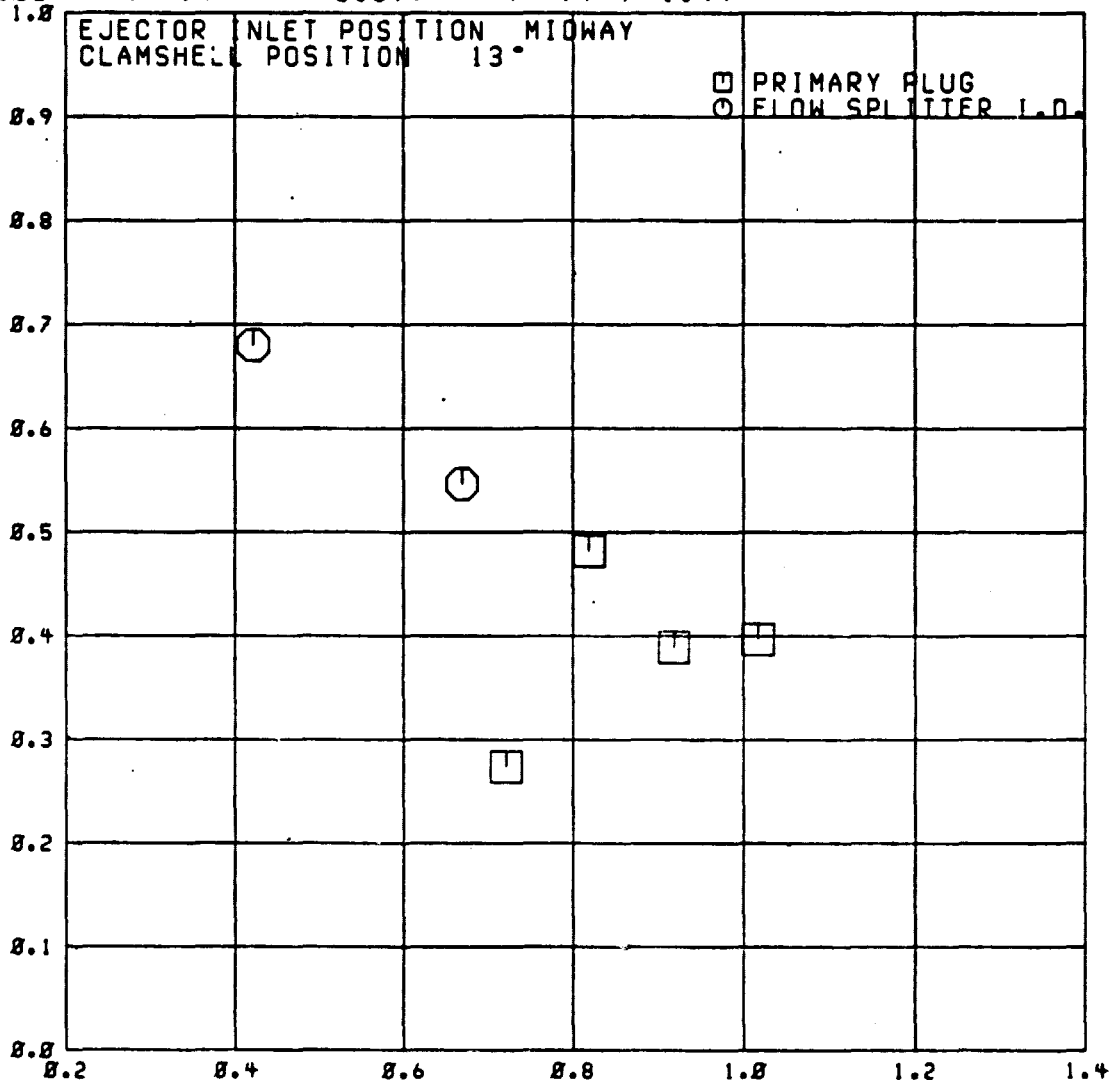
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.85$

$P_{tr}/P_0 = 3.599$

$P_{tr}/P_{tp} = 1.44$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

RUN 24

RDG=1468

C3

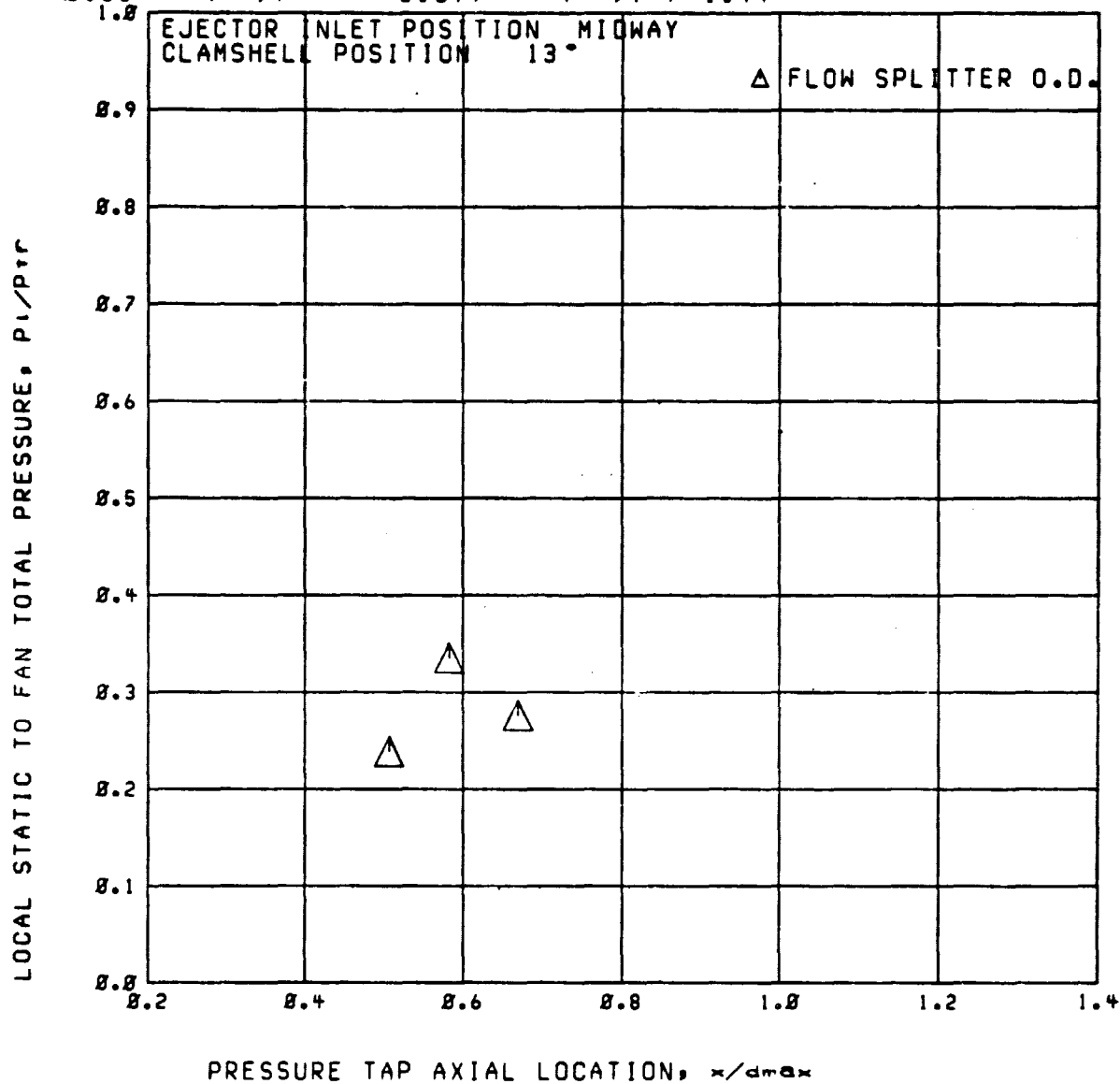
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$

$P_{tr}/P_0 =$

3.599

$P_{tr}/P_{tp} = 1.44$



ORIGINAL PAGE 17

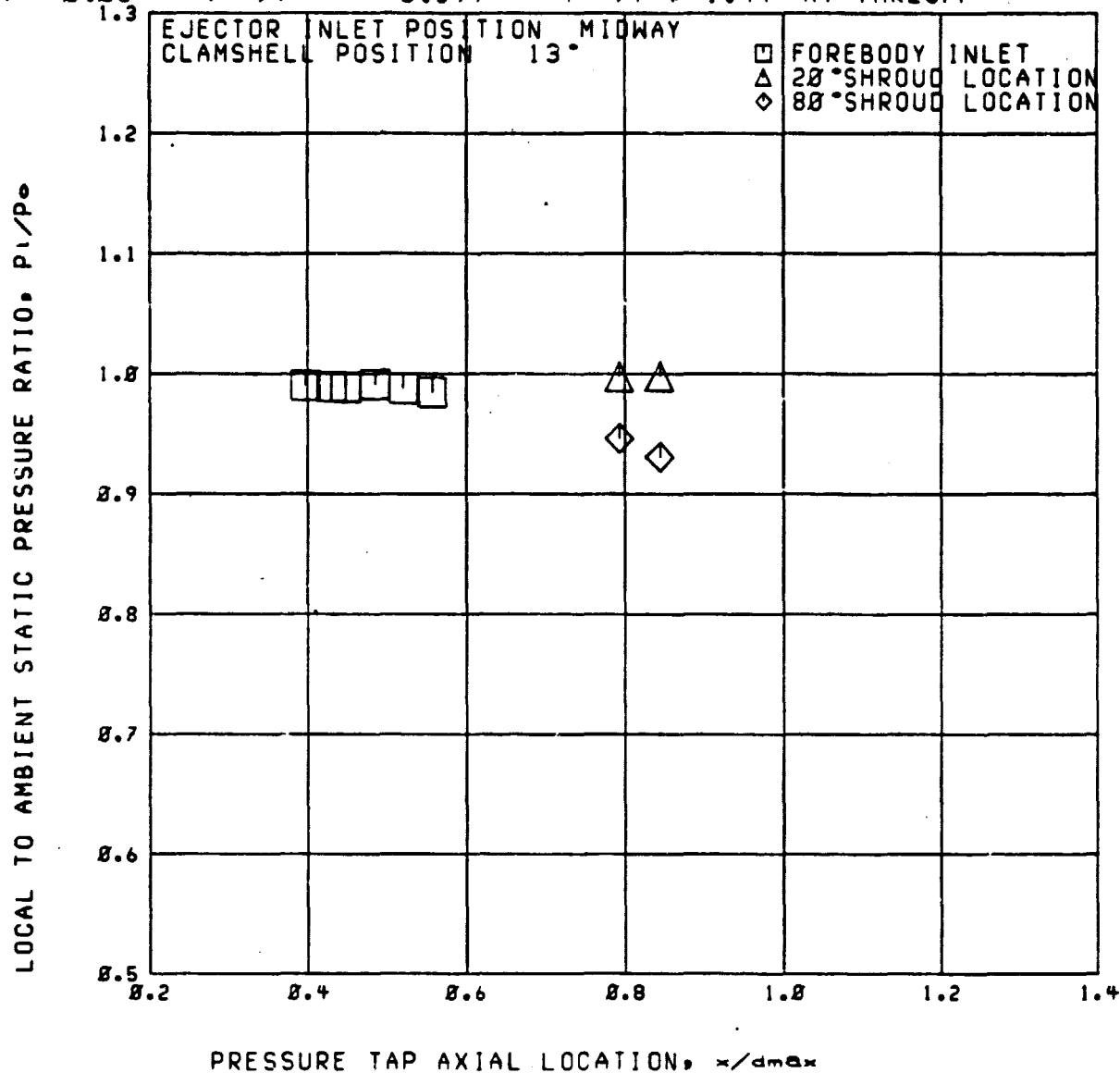
RUN 24

C3

RDG=1468

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.05$   $P_{tr}/P_o = 3.599$   $P_{tr}/P_{tp} = 1.44$  AT TAKEOFF



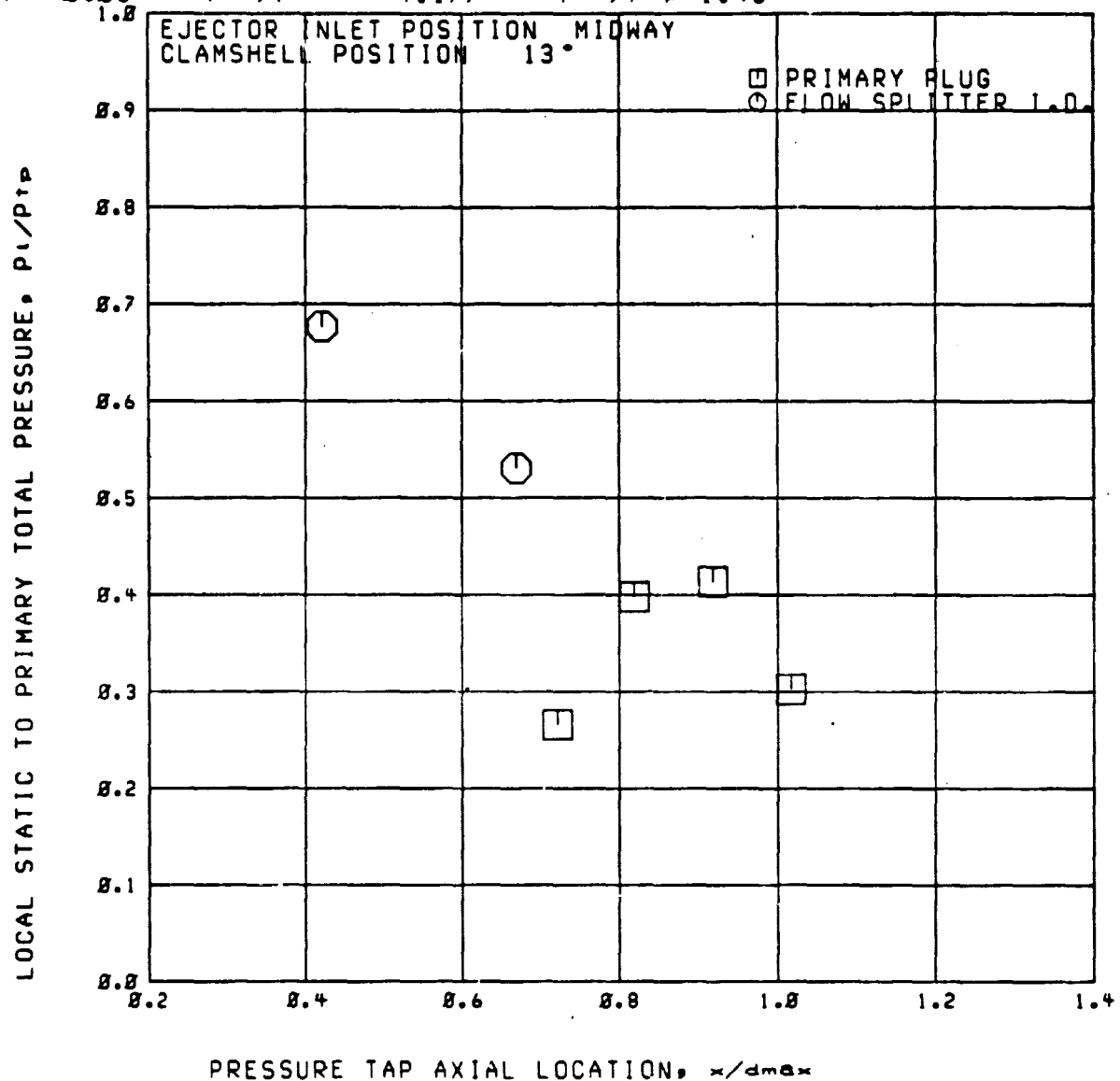
RUN 24

C3

RDG=1461

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.86$   $P_{tr}/P_o = 4.177$   $P_{tr}/P_{tp} = 1.45$



Run 24

RDG=1461

C3

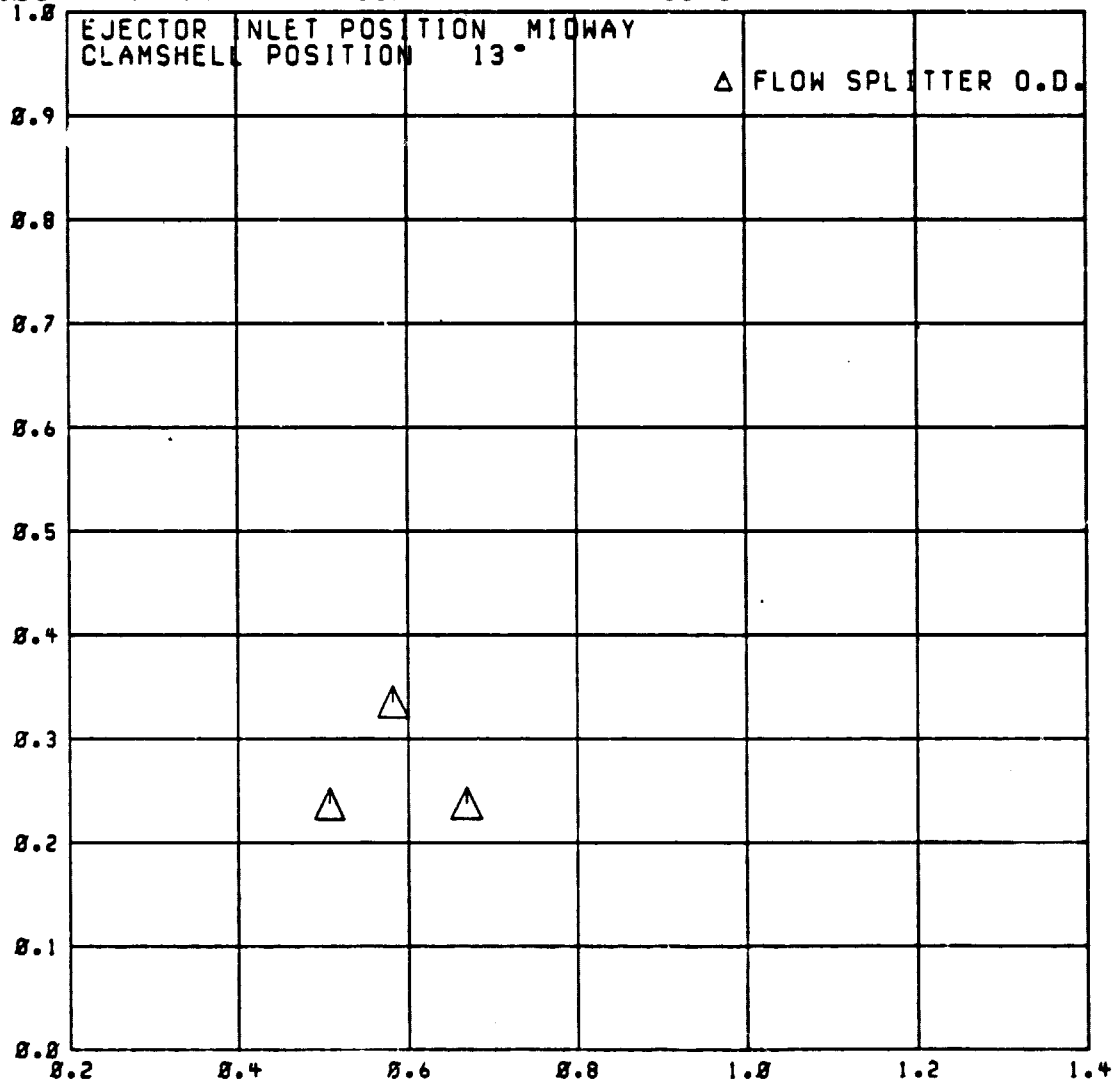
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.86$

$P_{tr}/P_0 = 4.177$

$P_{tr}/P_{tp} = 1.45$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

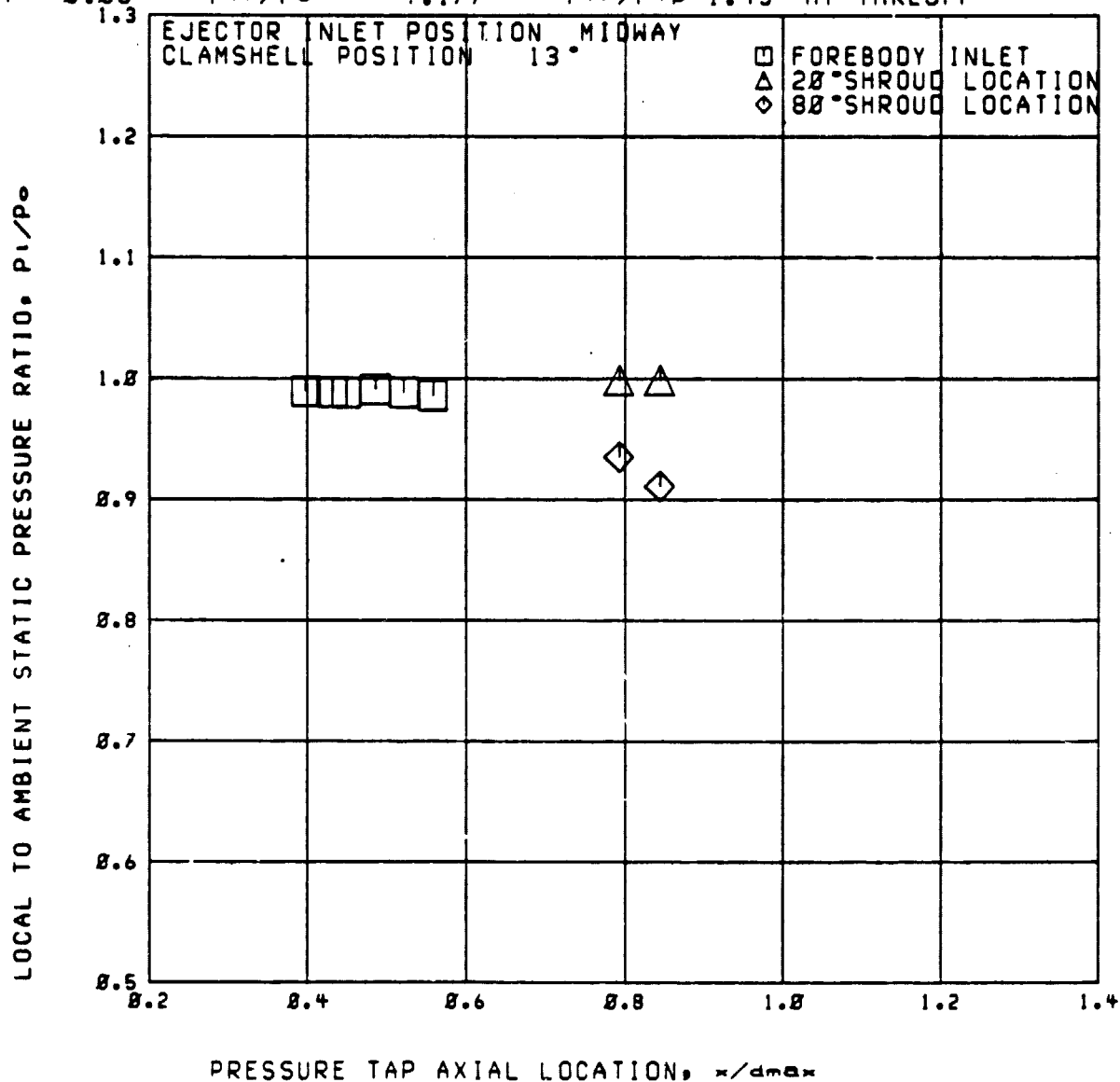
RUN 24

C3

RDG=1461

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.06$   $P_{tF}/P_0 = 4.177$   $P_{tF}/P_{tP} = 1.45$  AT TAKEOFF



RUN 24

RDG=1483

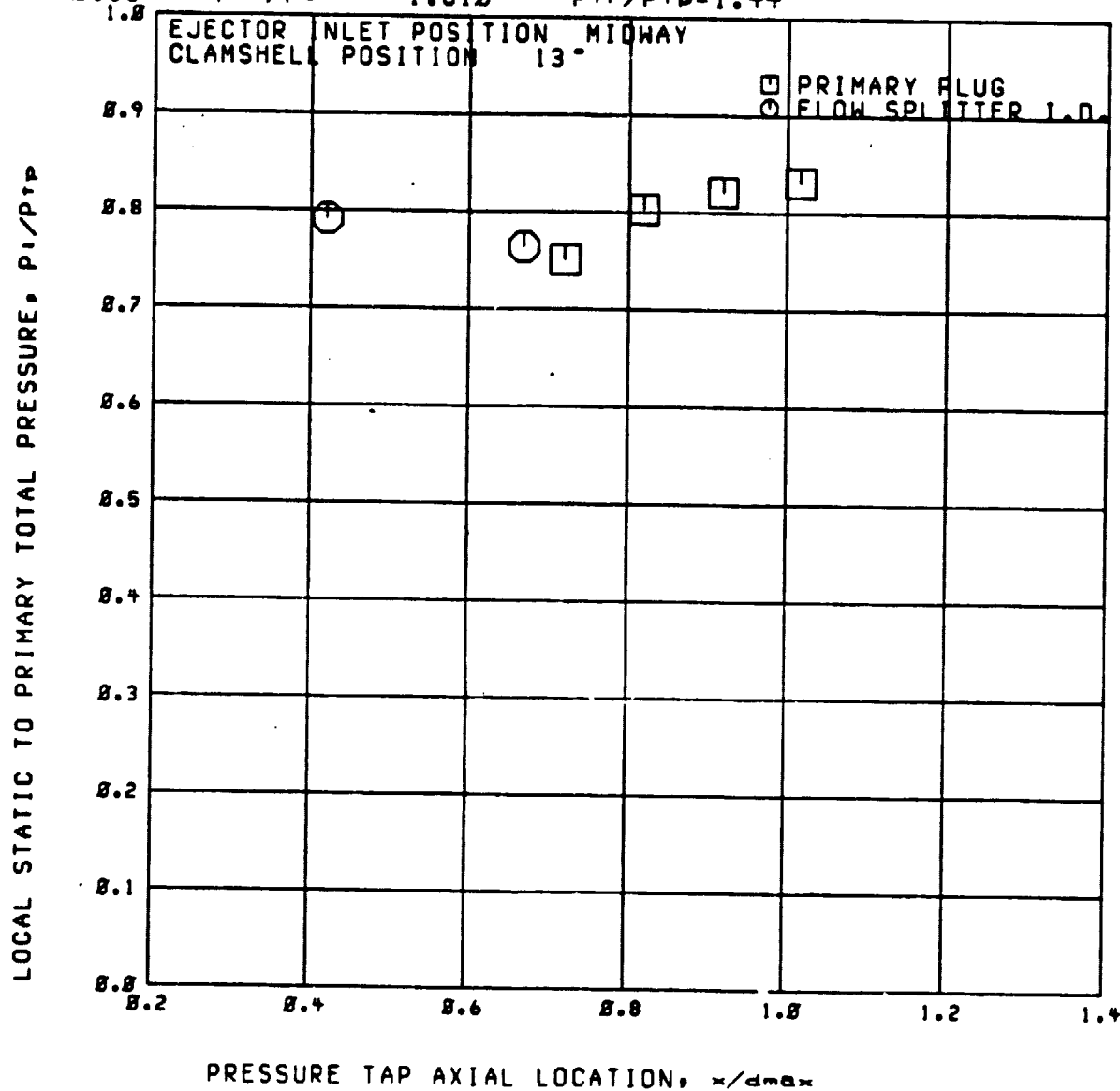
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 = 1.810$

$P_{tr}/P_{tp} = 1.44$



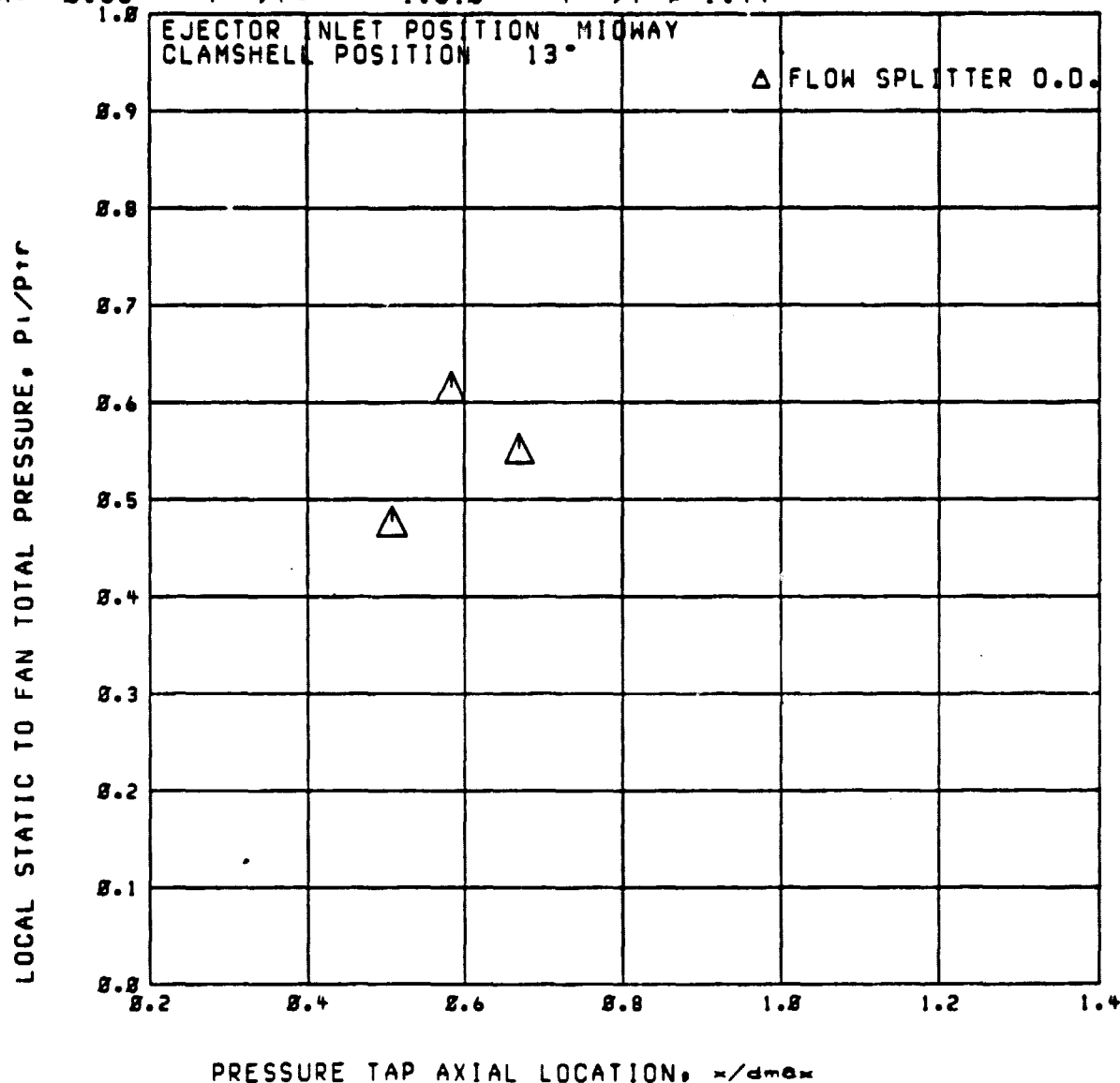
Run 24

C3

RDG=1483

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.36$   $P_{tr}/P_{\infty} = 1.818$   $P_{tr}/P_{tr} = 1.44$





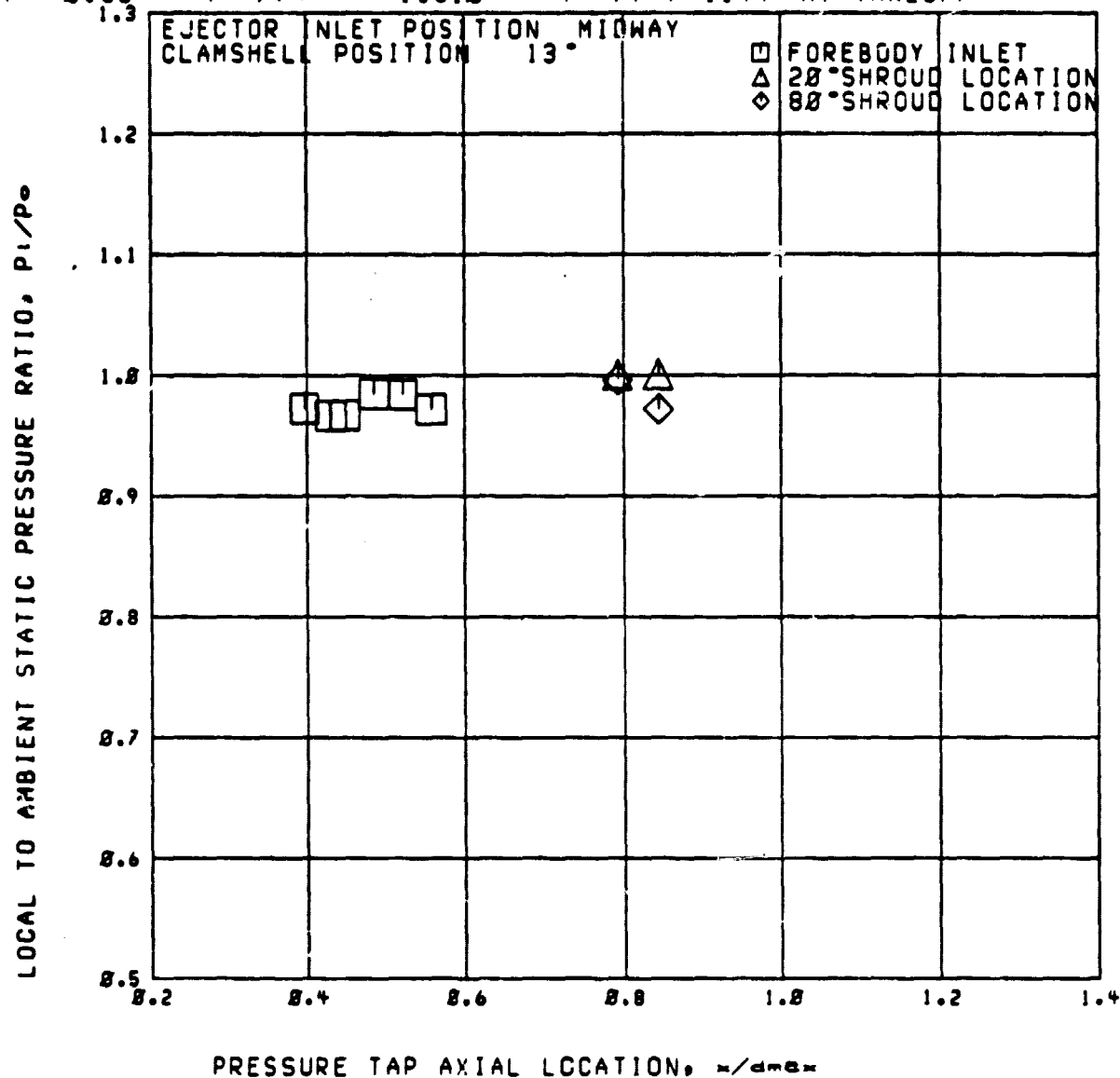
RUN 24

C3

RDG=1483

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M = 0.36$   $P_{tr}/P_{oe} = 1.818$   $P_{tr}/P_{tp} = 1.44$  AT TAKEOFF



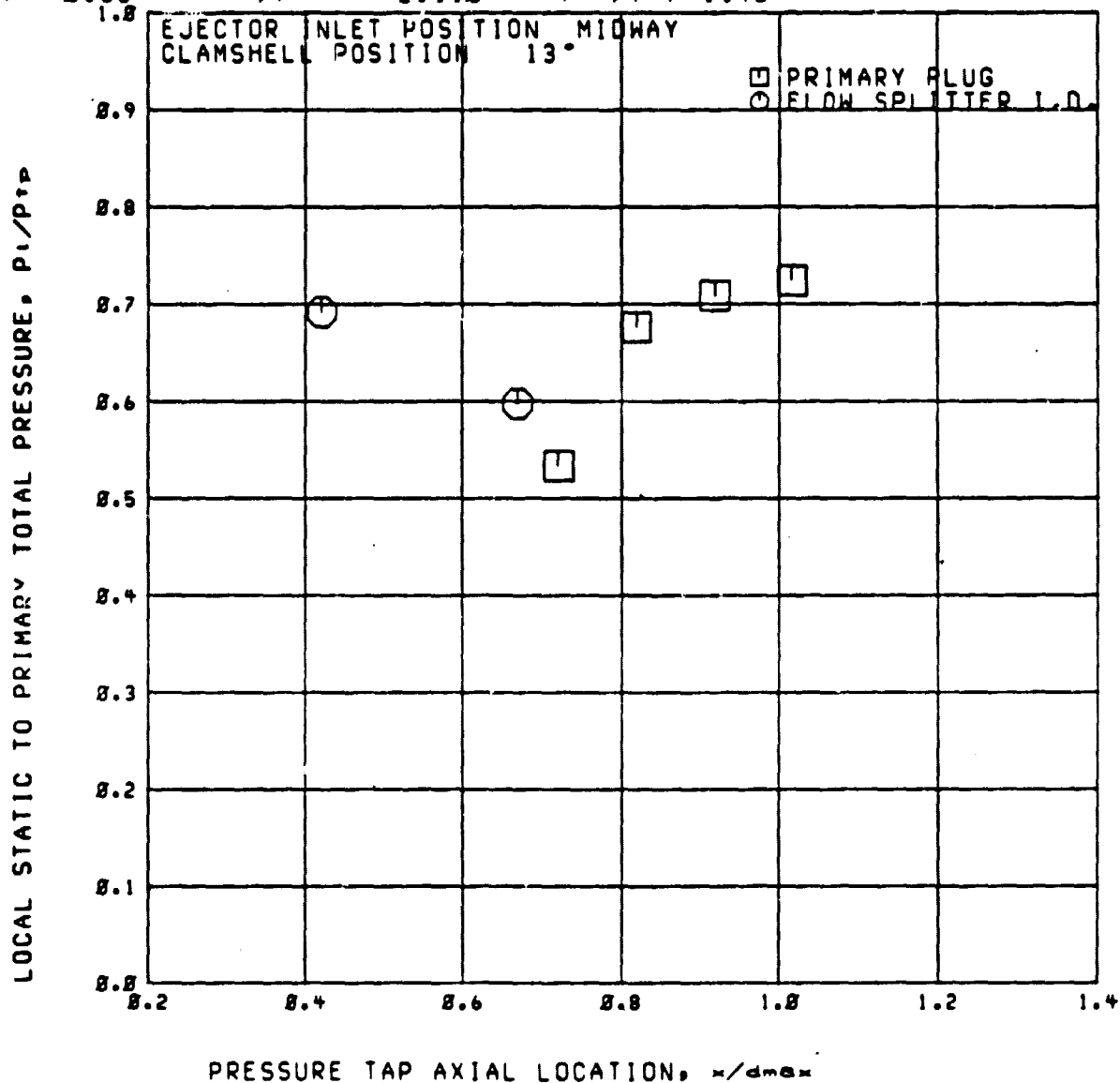
RUN 24

C3

RDG=1484

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{ir}/P_{00} = 2.118$   $P_{ir}/P_{ir0} = 1.43$



RUN 24

C3

RDG=1484

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

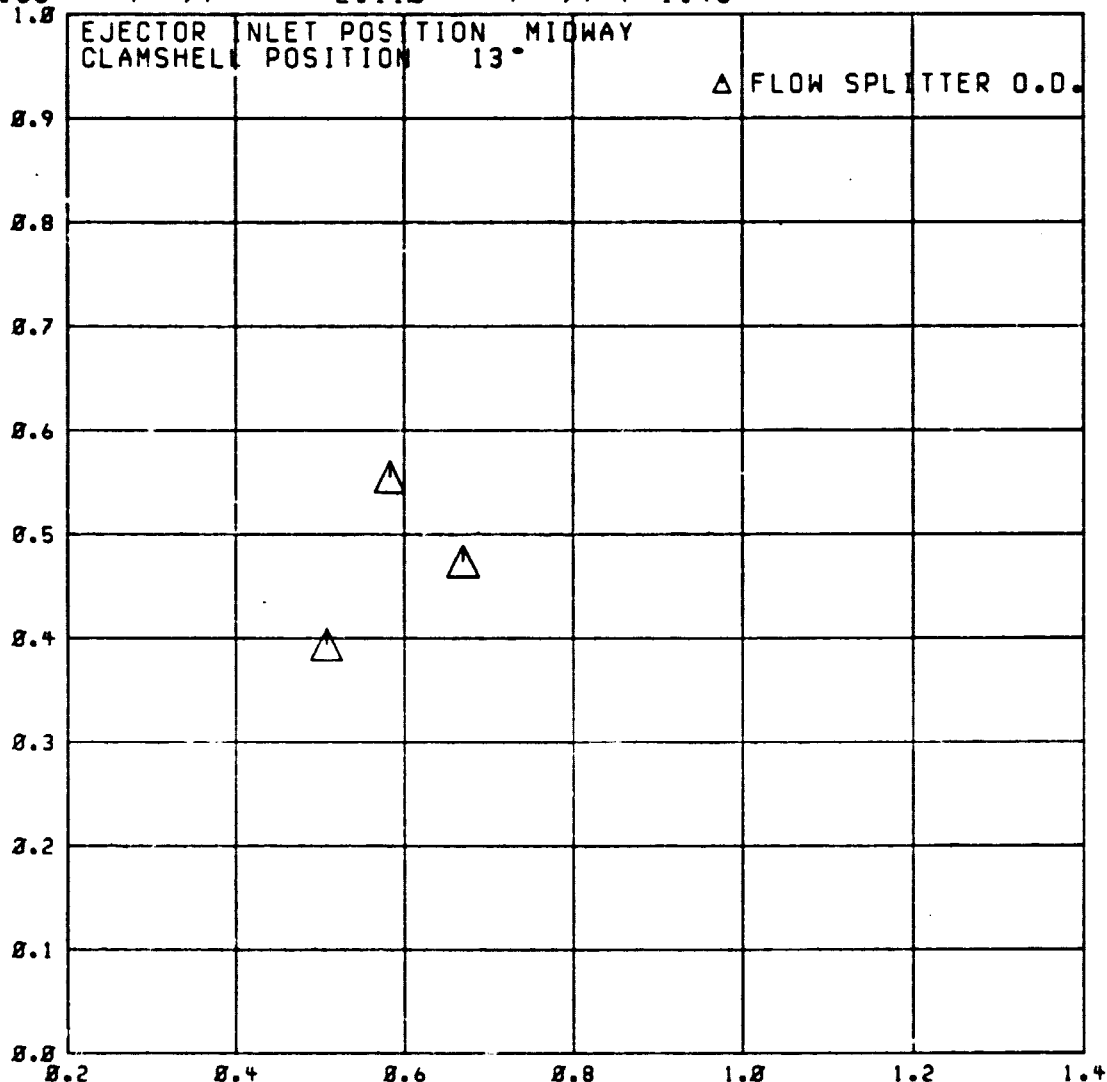
$M_0 = 0.36$

$P_{tr}/P_0 =$

2.118

$P_{tr}/P_{tp} = 1.43$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

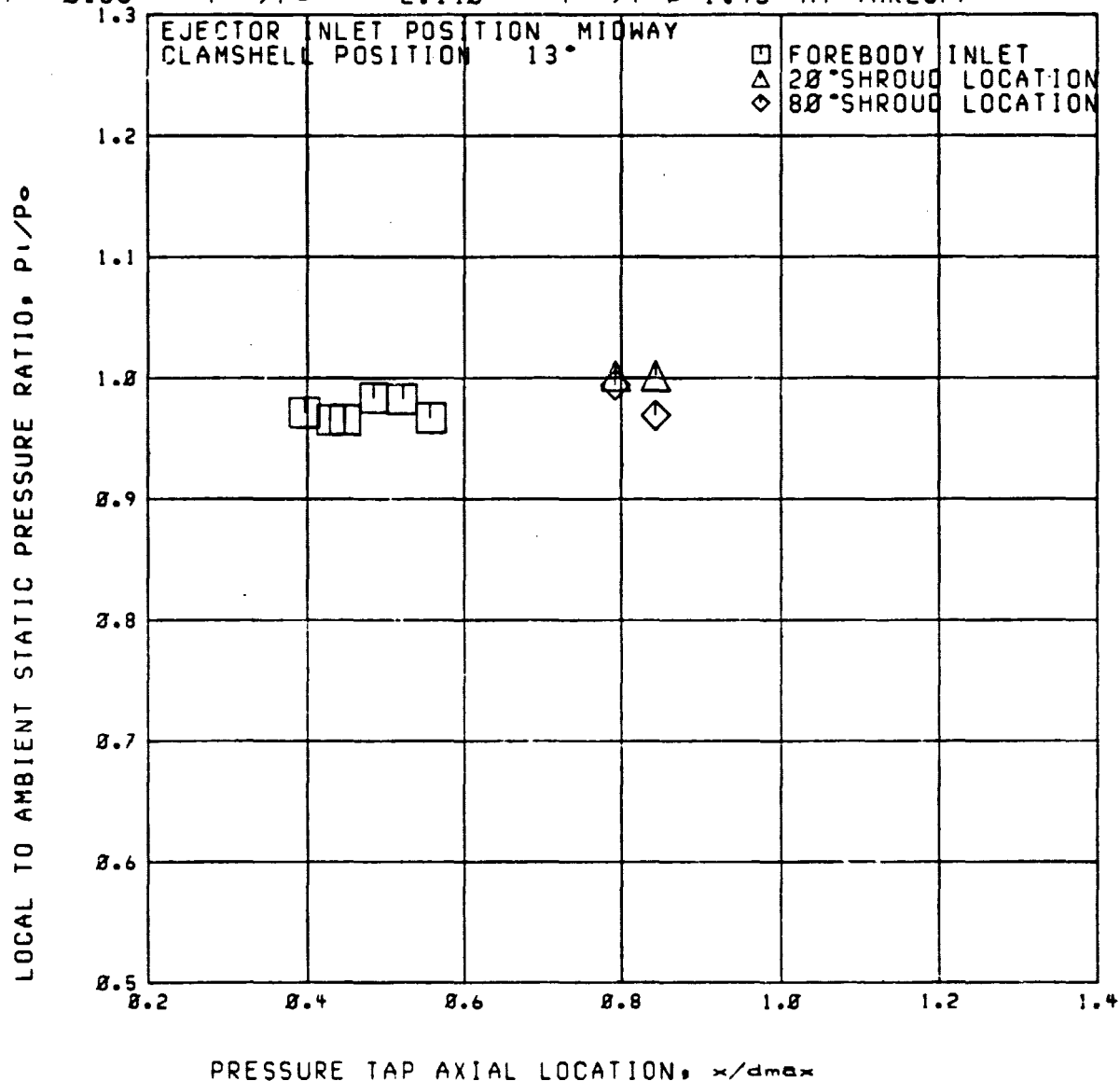
RUN 24

C3

RDG=1484

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 2.118$   $P_{tr}/P_{tr} = 1.43$  AT TAKEOFF



ORIGINAL DATA IS  
IN THE FILE

Run 24

C3

RDG=1485

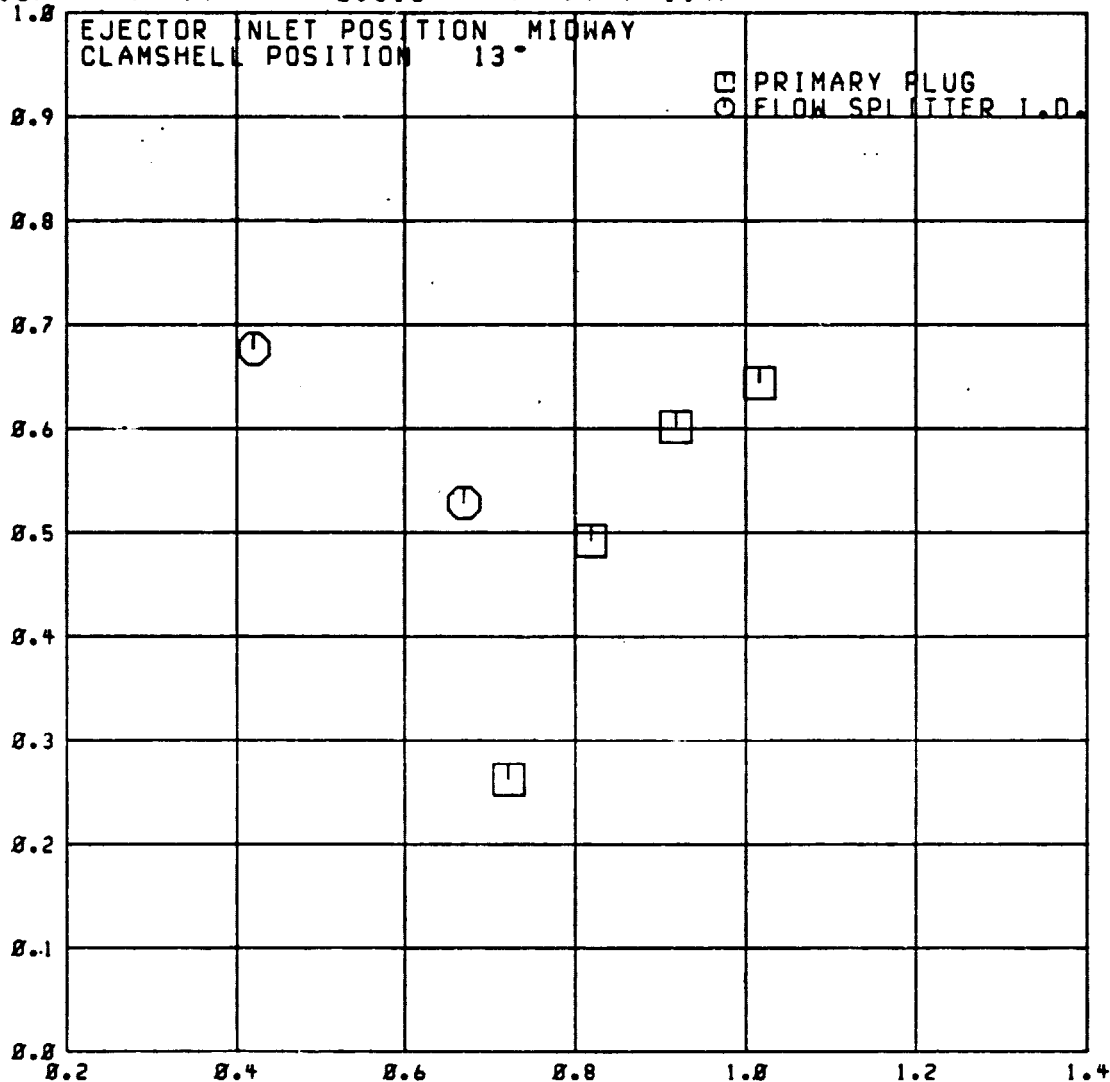
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.37$

$P_{tr}/P_0 = 2.516$

$P_{tr}/P_{trp} = 1.47$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{trp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

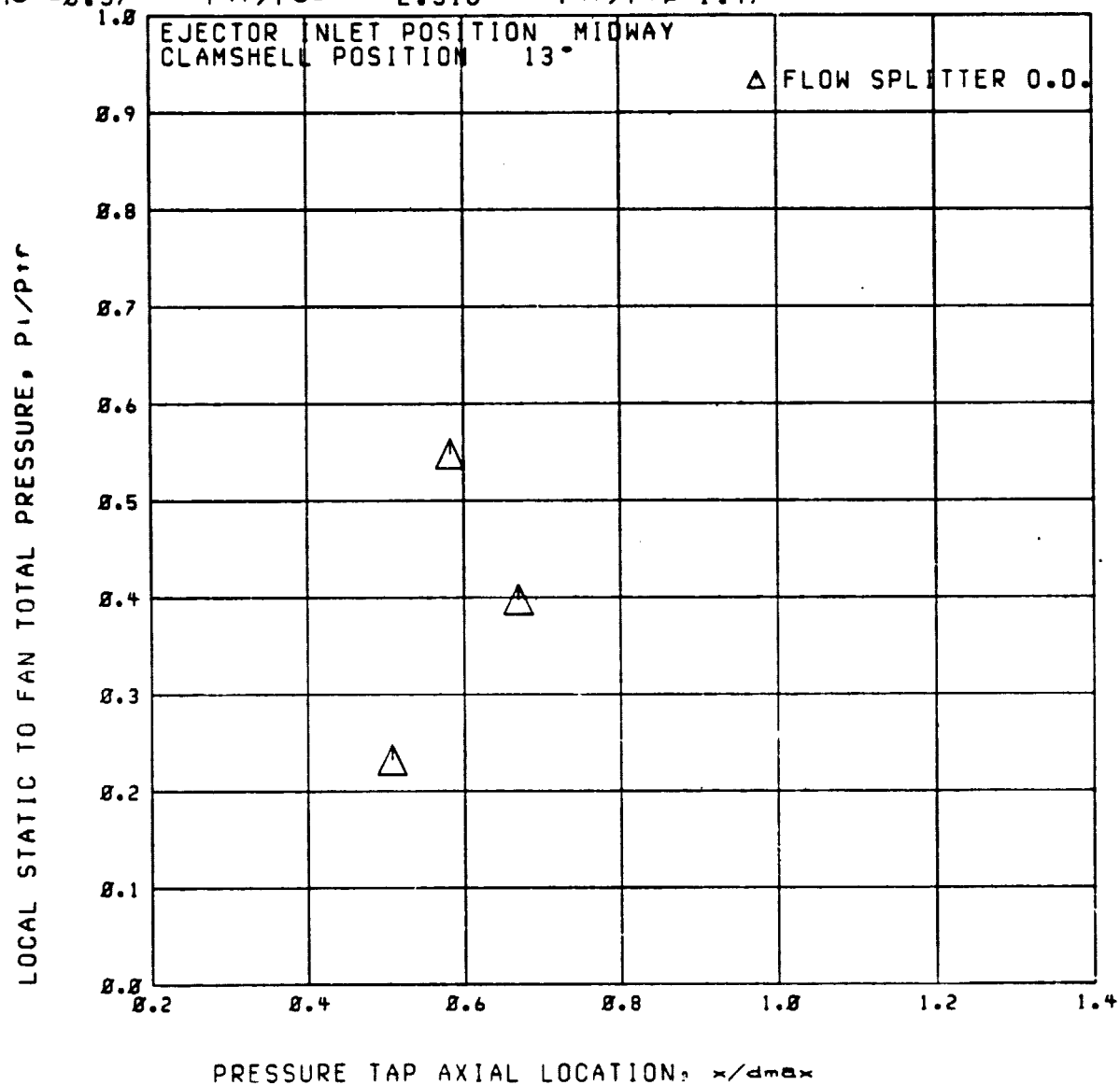
RUN 24

C3

RDG=1485

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.37$      $P_{tr}/P_0 = 2.516$      $P_{tr}/P_{tr} = 1.47$



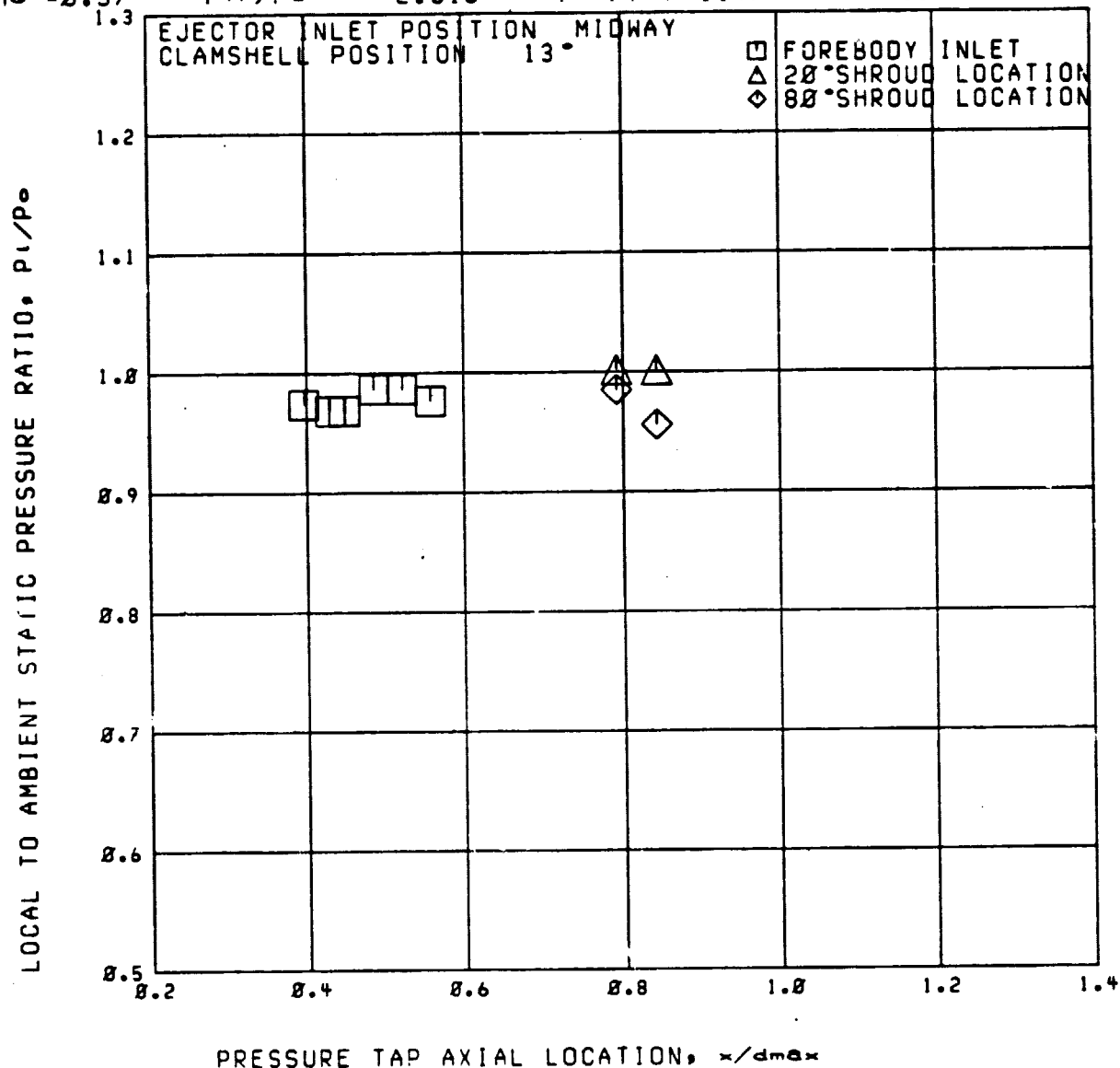
RUN 24

RDG=1485

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.37$        $P_{tr}/P_0 = 2.516$        $P_{tr}/P_{tp} = 1.47$  AT TAKEOFF



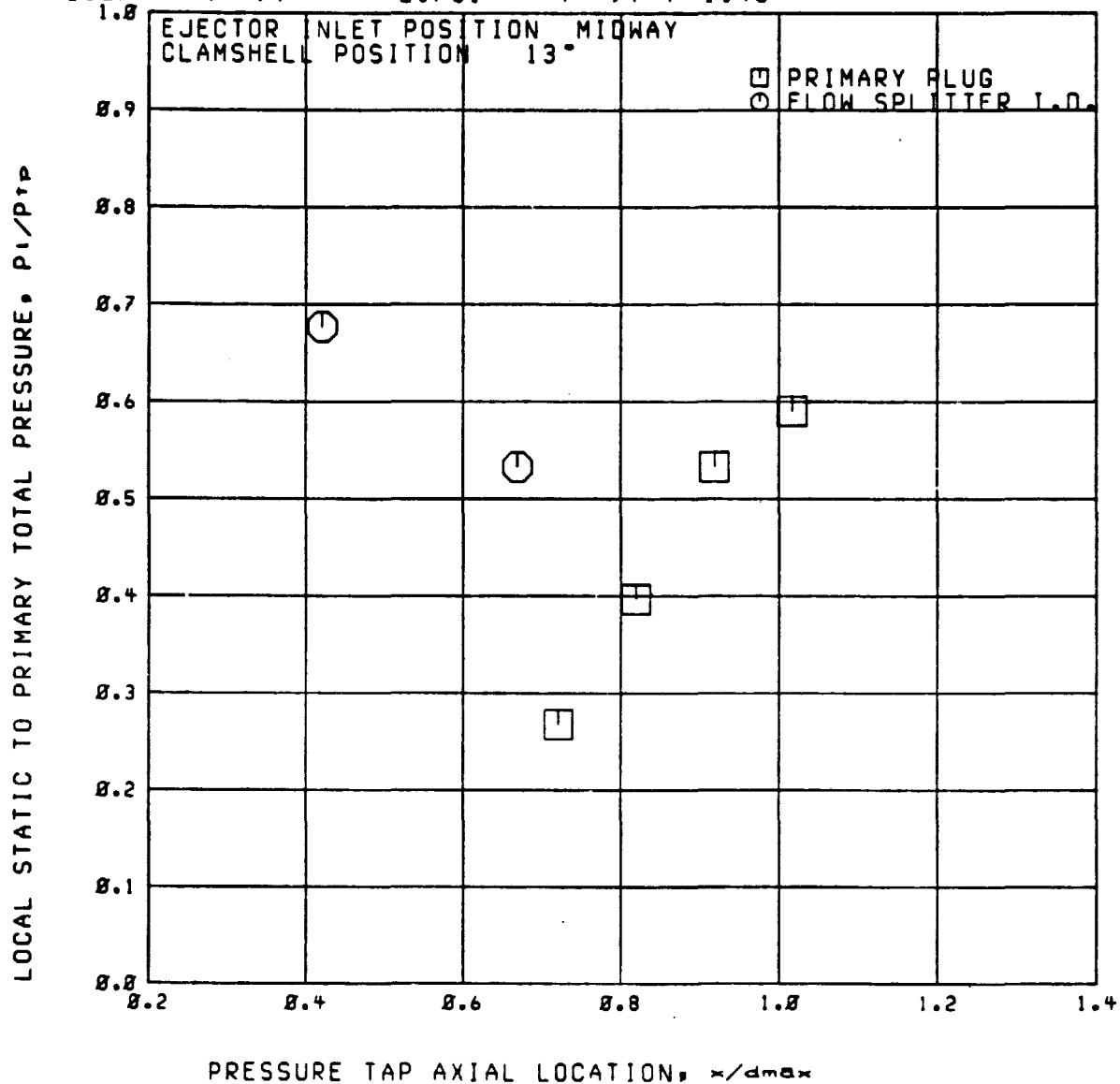
RUN 24

RDG=1486

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.37$   $P_{tr}/P_0 = 2.761$   $P_{tr}/P_{tr} = 1.48$





Run 24

C3

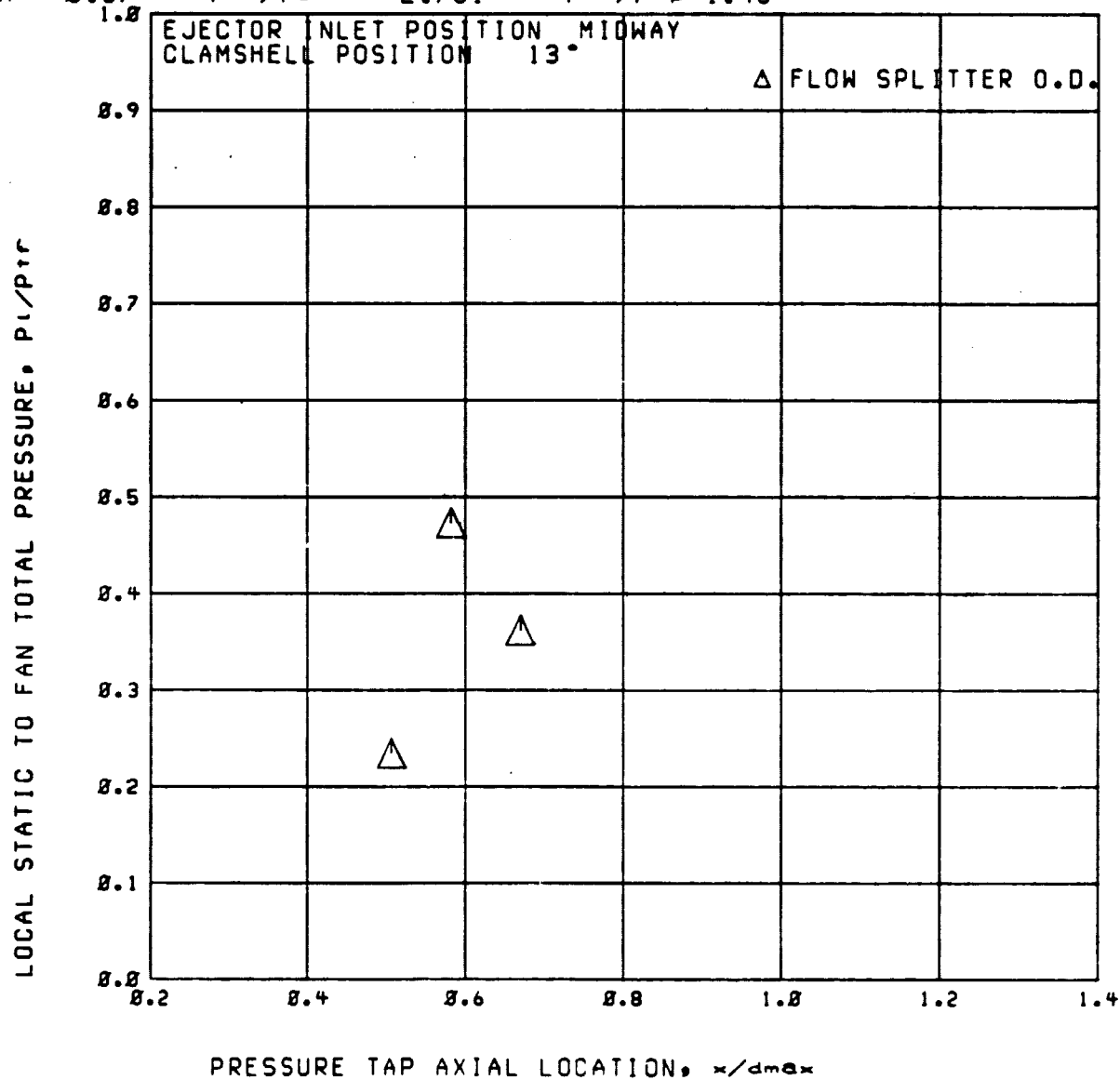
RDG=1486

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.37$

$P_{tr}/P_0 = 2.761$

$P_{tr}/P_{tp} = 1.48$



Run 24

RDG=1486

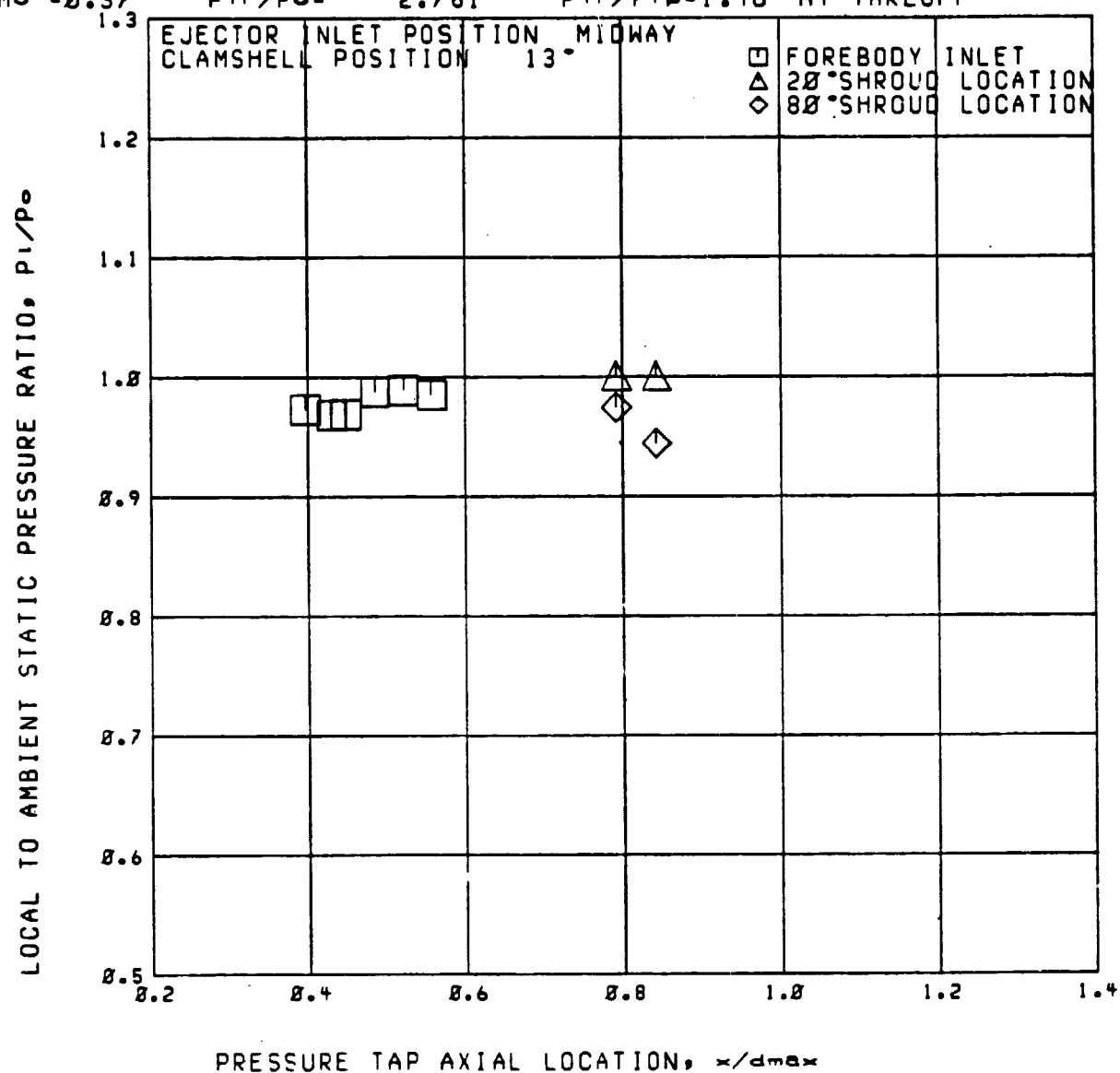
C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.37$

$P_{tr}/P_0 = 2.761$

$P_{tr}/P_{tr} = 1.48$  AT TAKEOFF



Run 24

C3

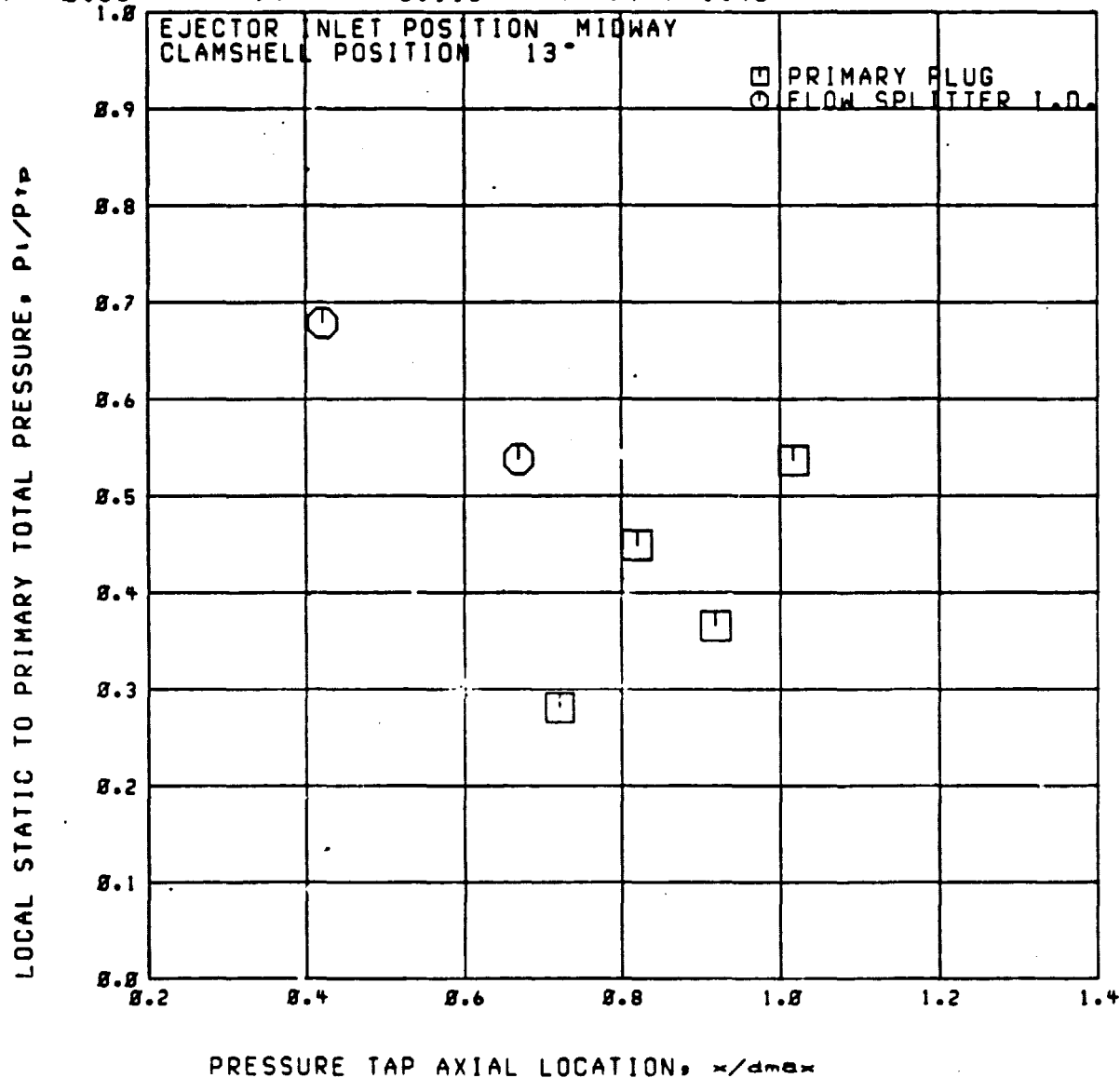
RDG=1487

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 = 3.118$

$P_{tr}/P_{trp} = 1.48$



RUN 24

C3

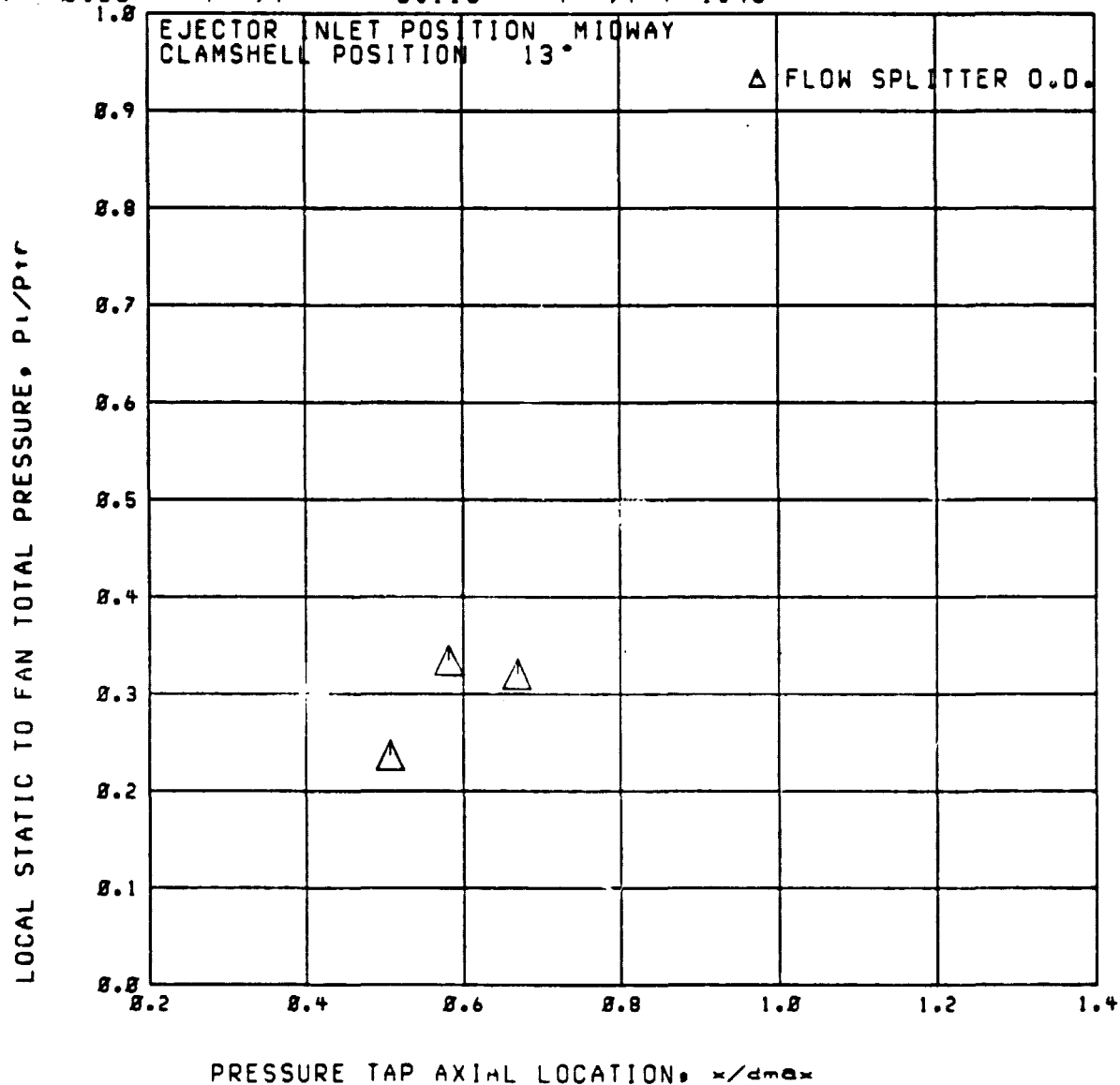
RDG=1487

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 = 3.118$

$P_{tr}/P_{tp} = 1.48$



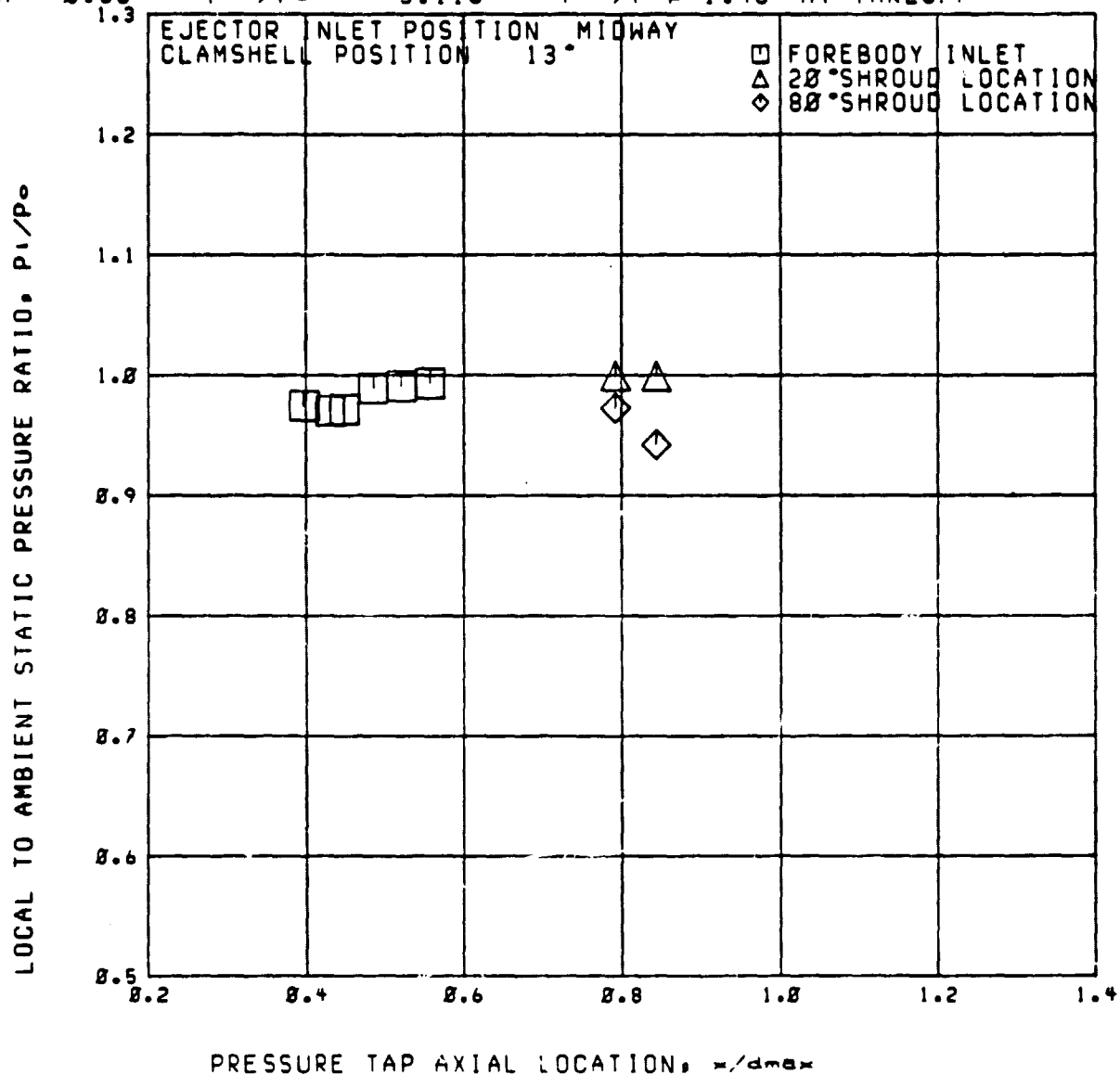
Run 24

RDG=1487

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$   $P_{t0}/P_0 = 3.118$   $P_{t0}/P_{tP} = 1.48$  AT TAKEOFF



Run 24

C3

RDG=1488

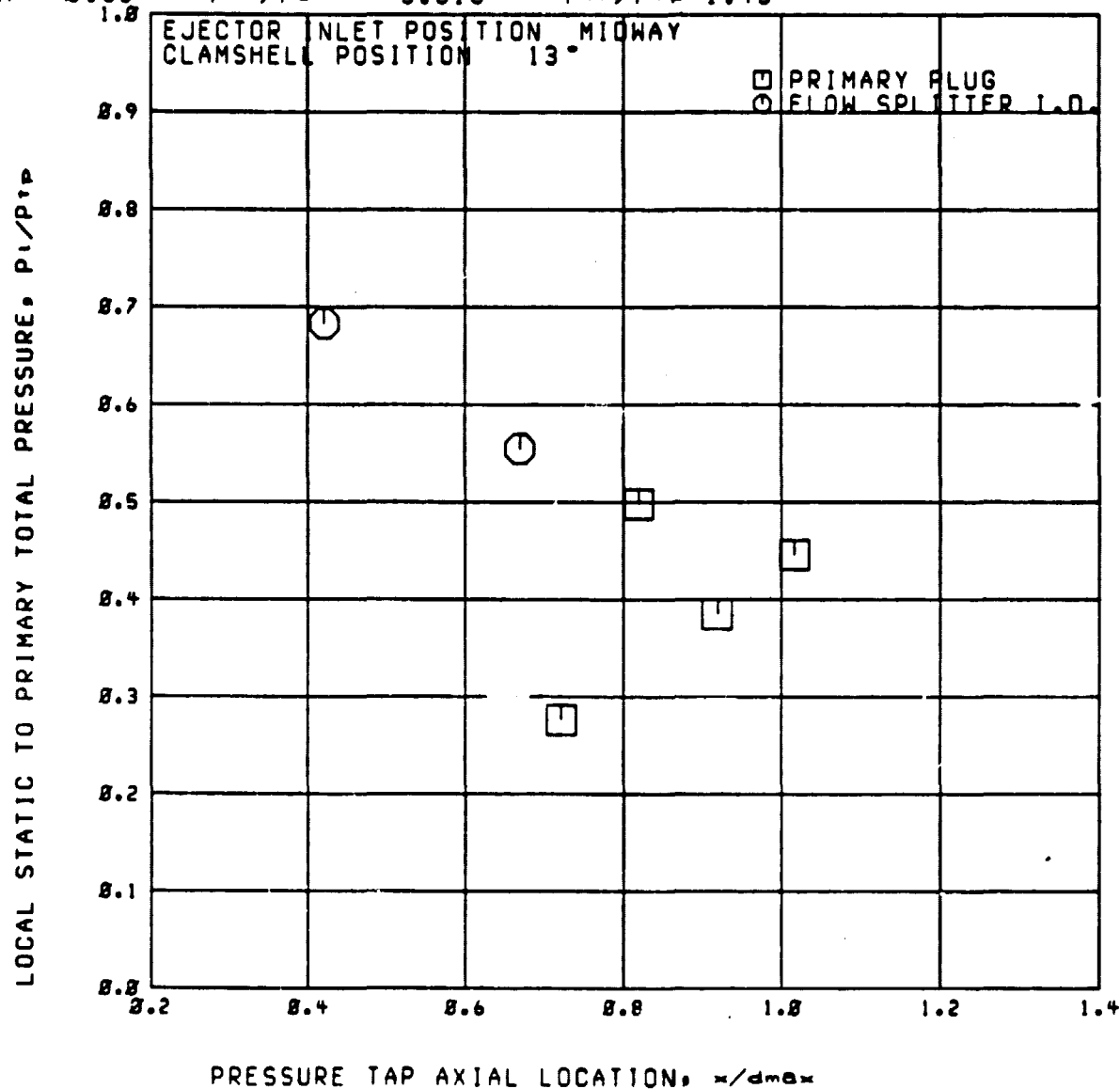
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_{0e} =$

3.618

$P_{tr}/P_{trp} = 1.45$



ORIGINAL PAGE  
OF 1-11 OF 1-11

Run 24

RDG=1488

C3

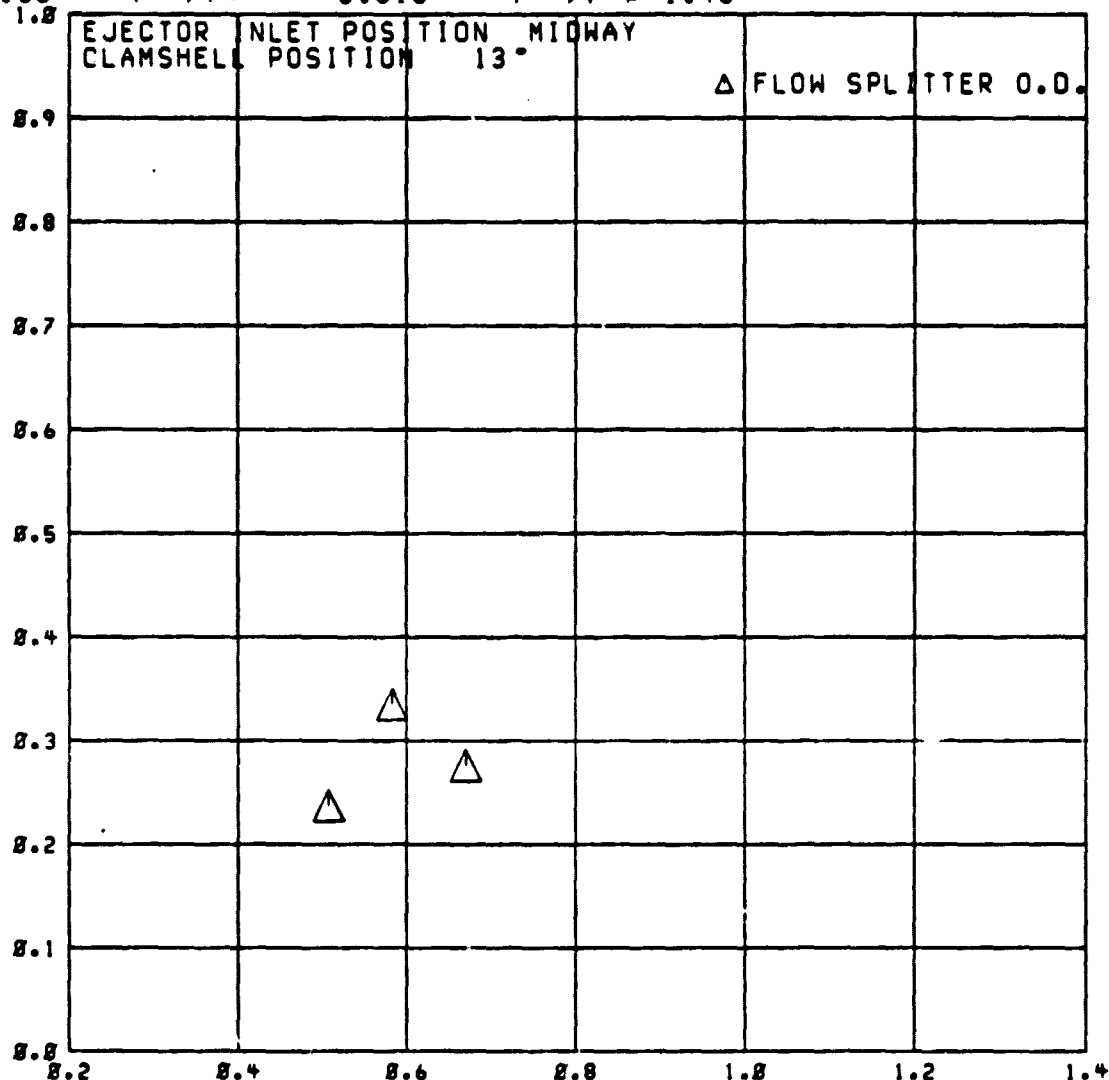
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.36$

$P_{tr}/P_o = 3.618$

$P_{tr}/P_{te} = 1.45$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

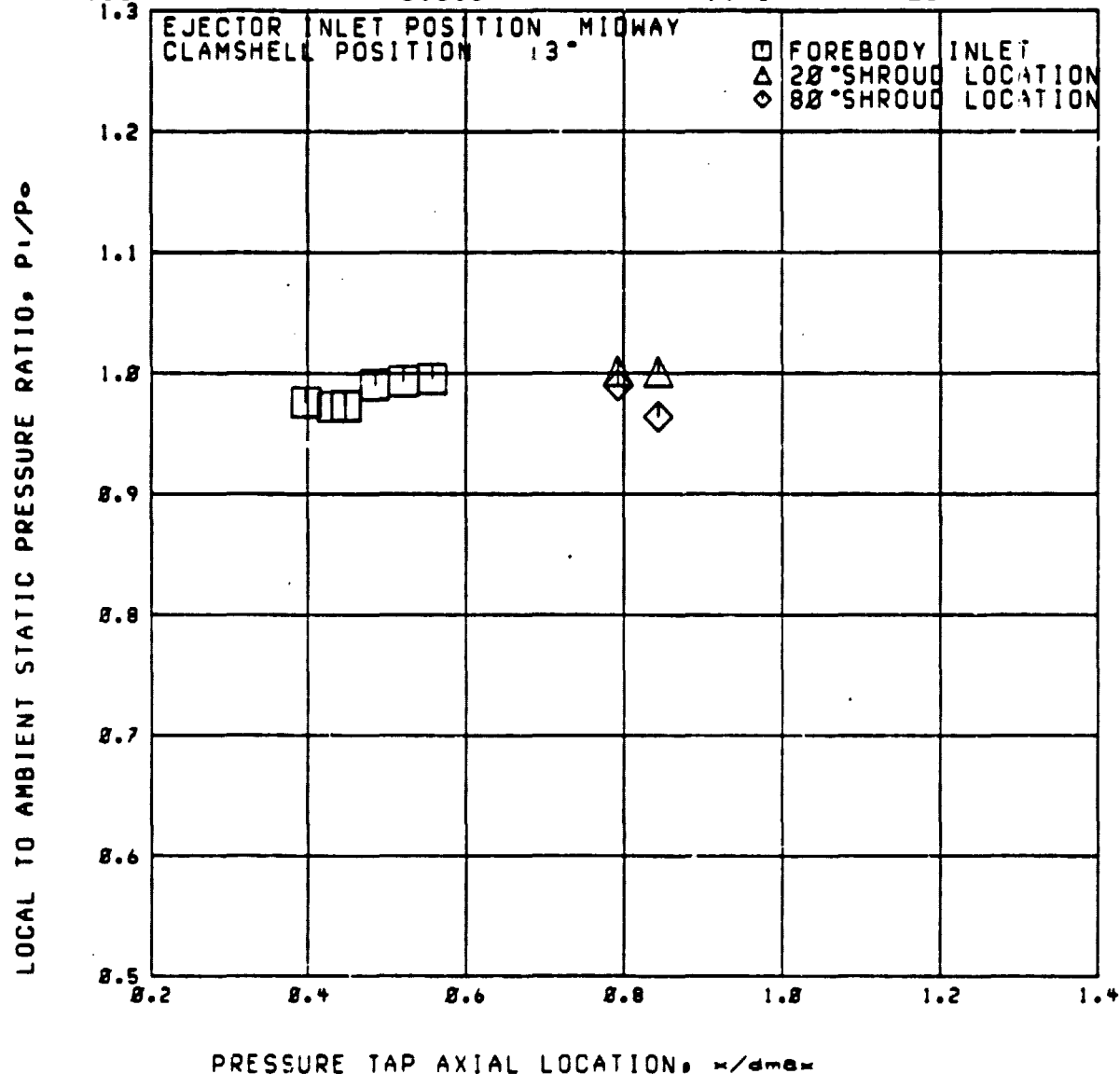
Run 24

C3

RDG=1488

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M = 0.36$   $P_{t0}/P_{\infty} = 3.618$   $P_{t0}/P_{t0} = 1.45$  AT TAKEOFF





Run 24

C3

RDG=1489

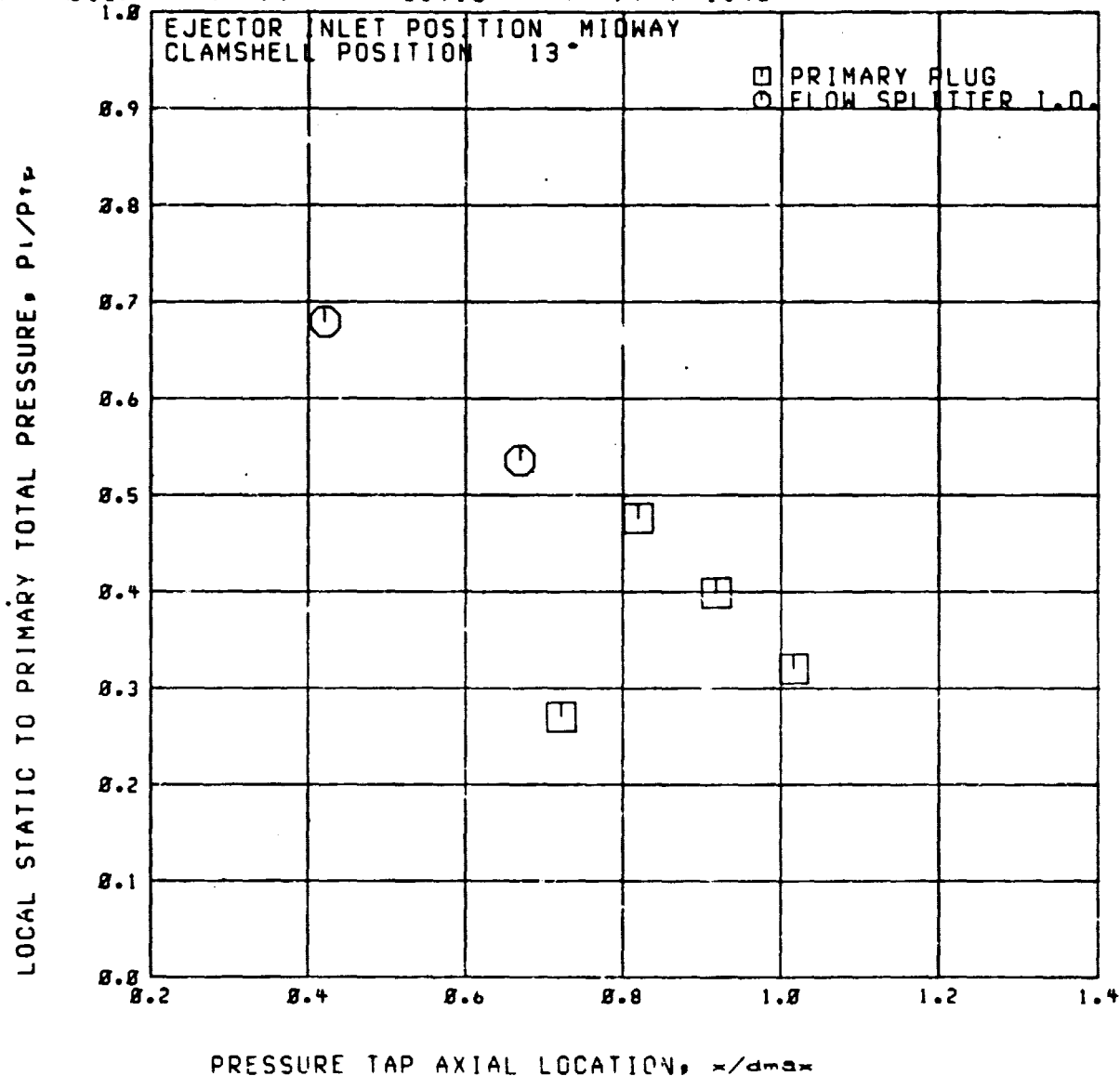
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.37$

$P_{ir}/P_o =$

3.915

$P_{ir}/P_{ip} = 1.46$



RUN 24

RDG=1489

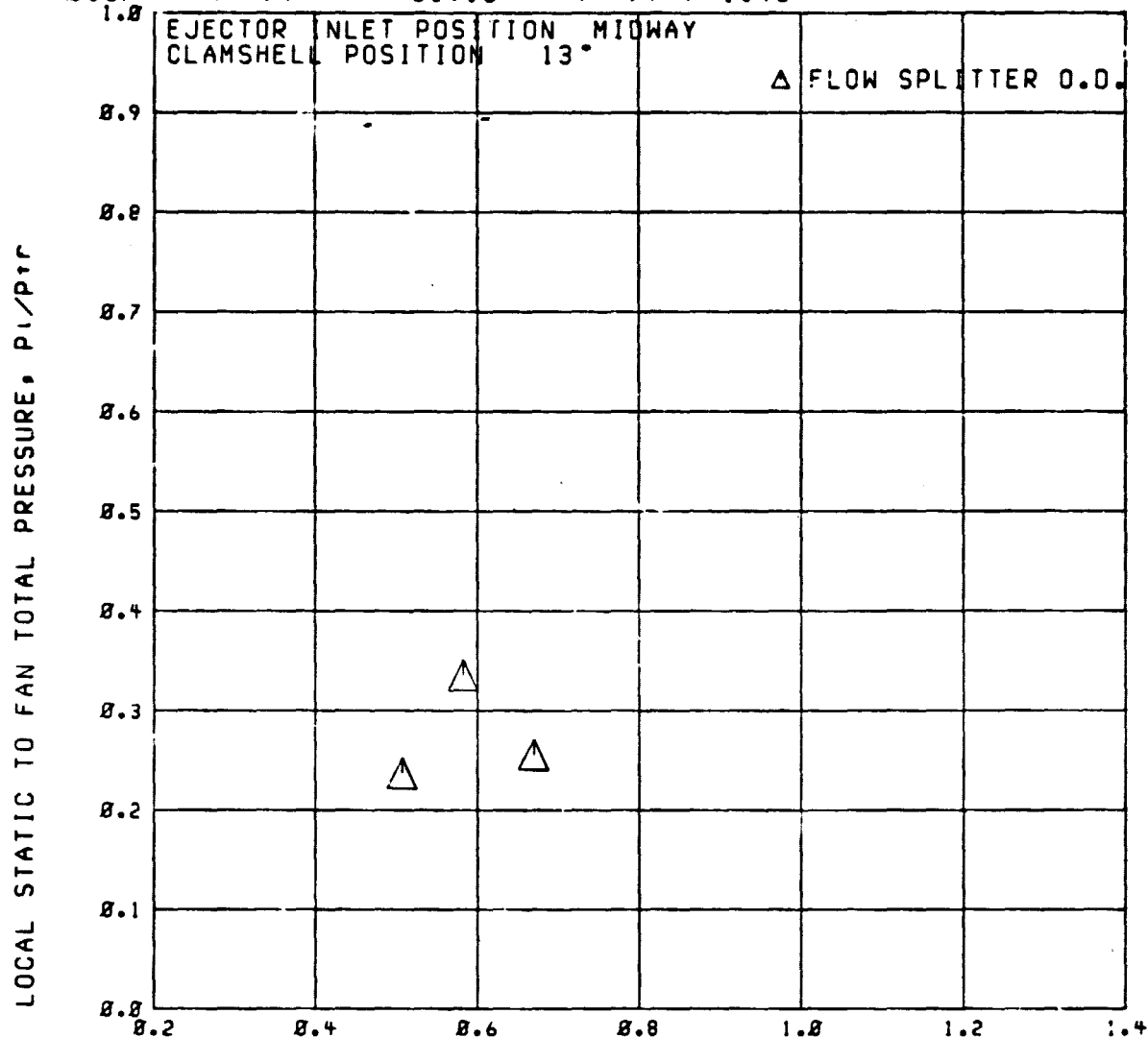
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.37$

$P_{tr}/P_0 = 3.915$

$P_{tr}/P_{tp} = 1.46$



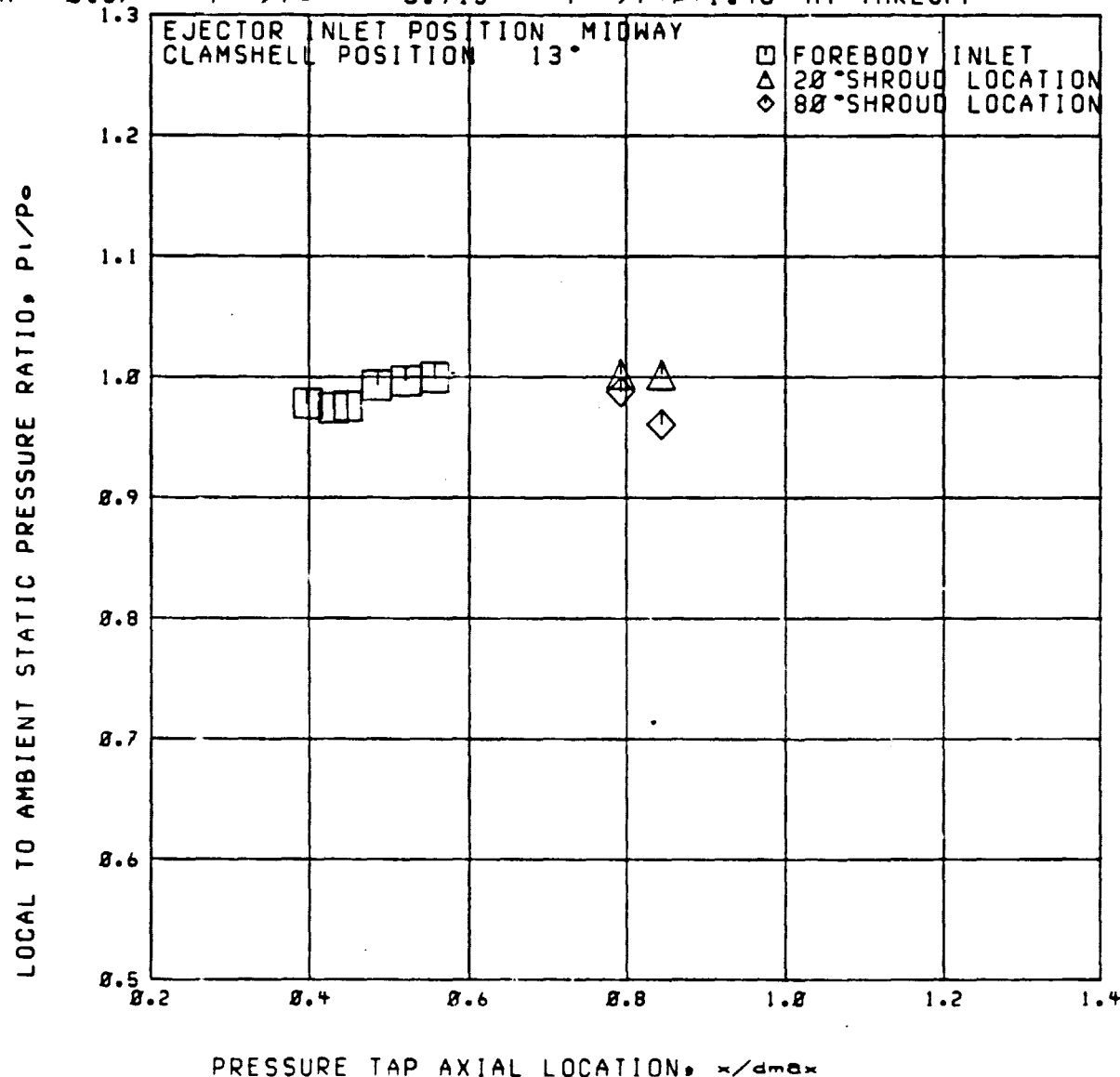
RUN 24

RDG=1489

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.37$      $P_{1c}/P_o = 3.915$      $P_{1c}/P_{1P} = 1.46$  AT TAKEOFF



ROC. 1499-1527

C3

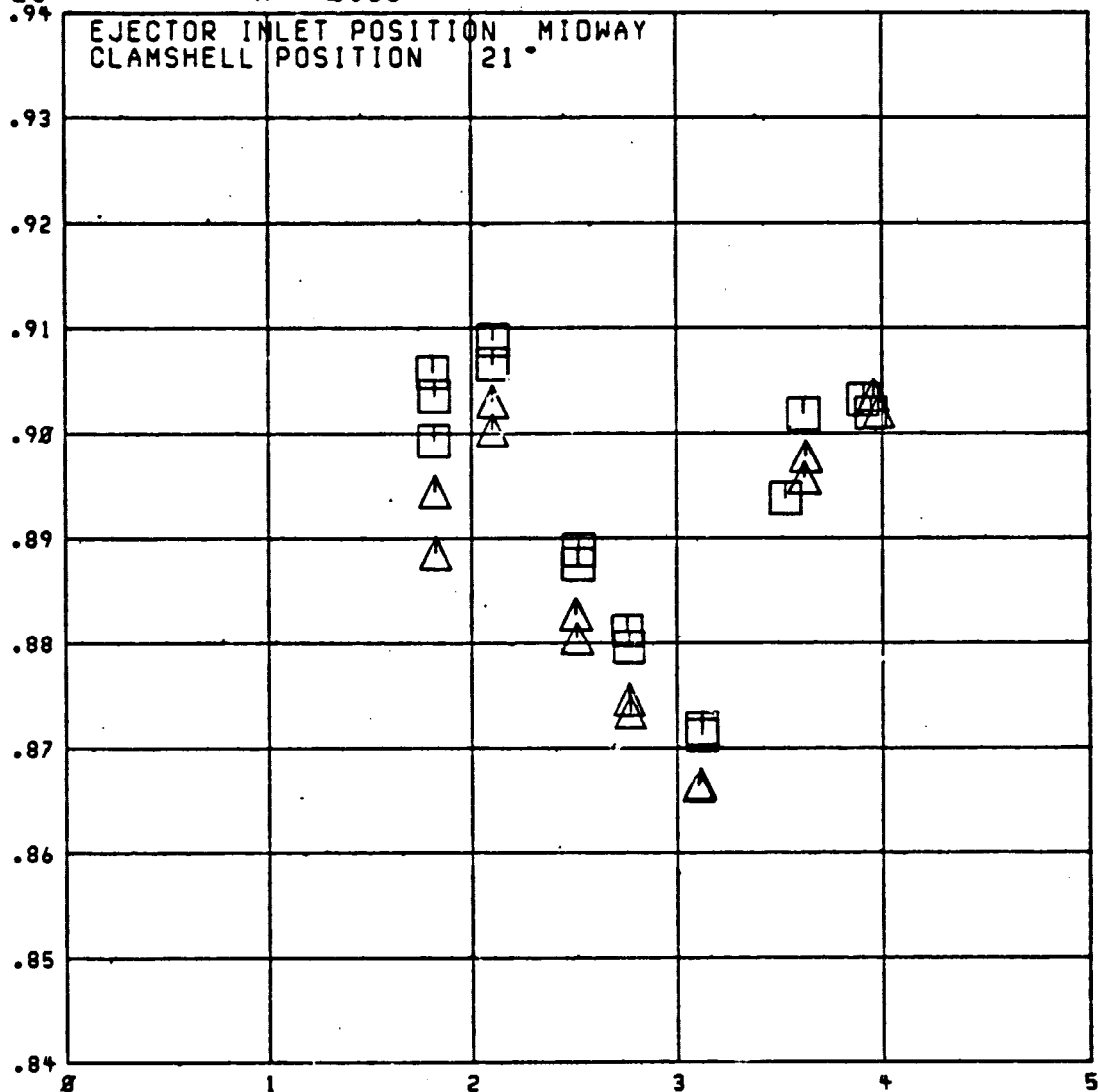
TAKEOFF

RUN 25

$M_0 = 0.36$

$P_{tr}/P_{tp} = \square = 1.46$   
 $\Delta = 1.70$

NOZZLE GROSS THRUST COEFFICIENT,  $CFPI$



FAN NOZZLE PRESSURE RATIO,  $PTF/PO$

RDG. 1499-1527

C3

TAKEOFF

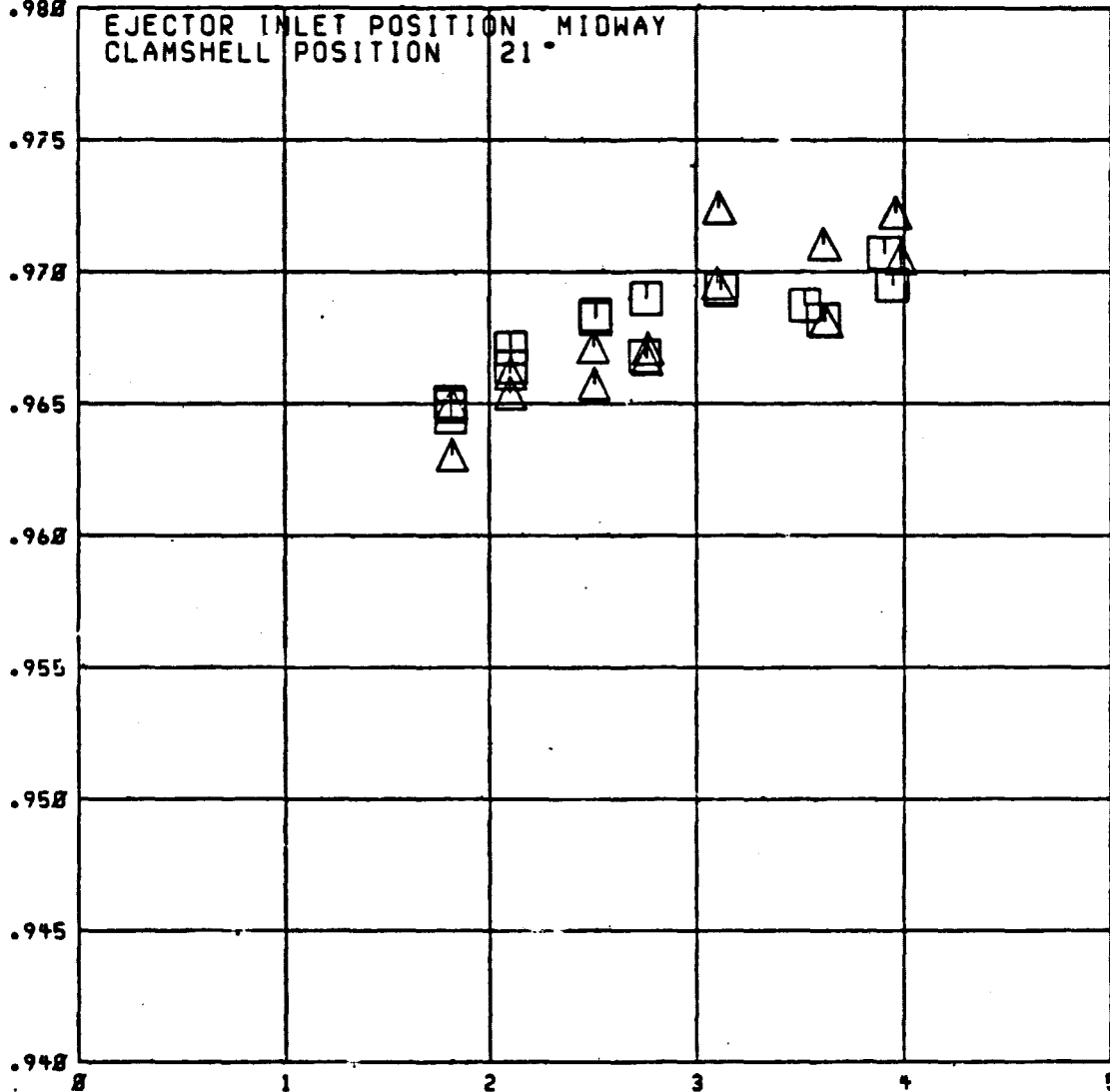
RUN 25

.988

$M = 8.36$

$P_{tr}/P_{tp} = \square = 1.46$   
 $\triangle = 1.78$

FAN-NOZZLE FLOW COEFFICIENT, CDF



FAN NOZZLE PRESSURE RATIO, PTF/PO

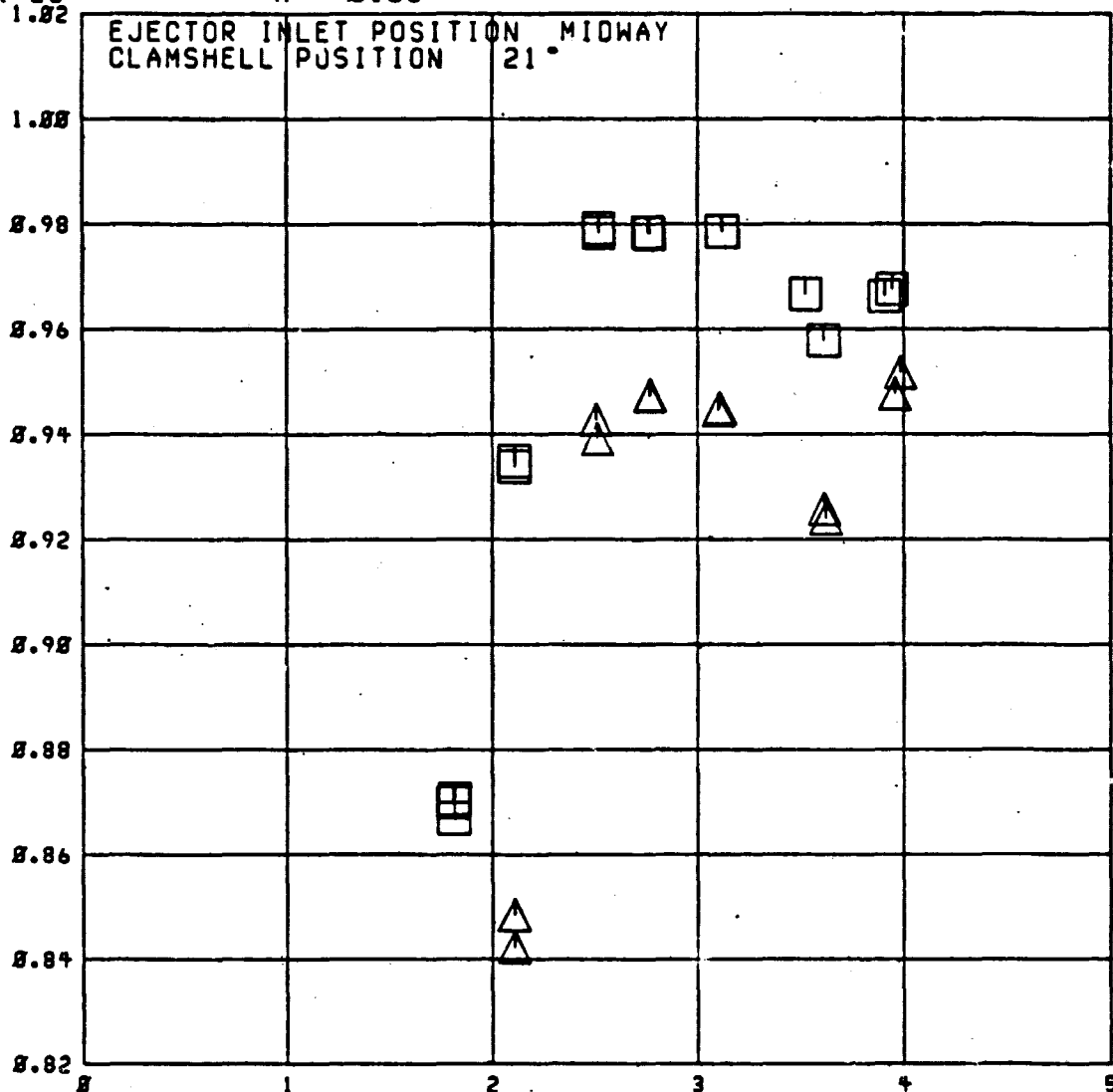
RDG. 1499-1527

C3  
TAKEOFF  
RUN 25

$M_0 = 0.36$

$P_{TC}/P_{TP} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, COP



FAN NOZZLE PRESSURE RATIO,  $PTF/PO$

RUN 25

C3

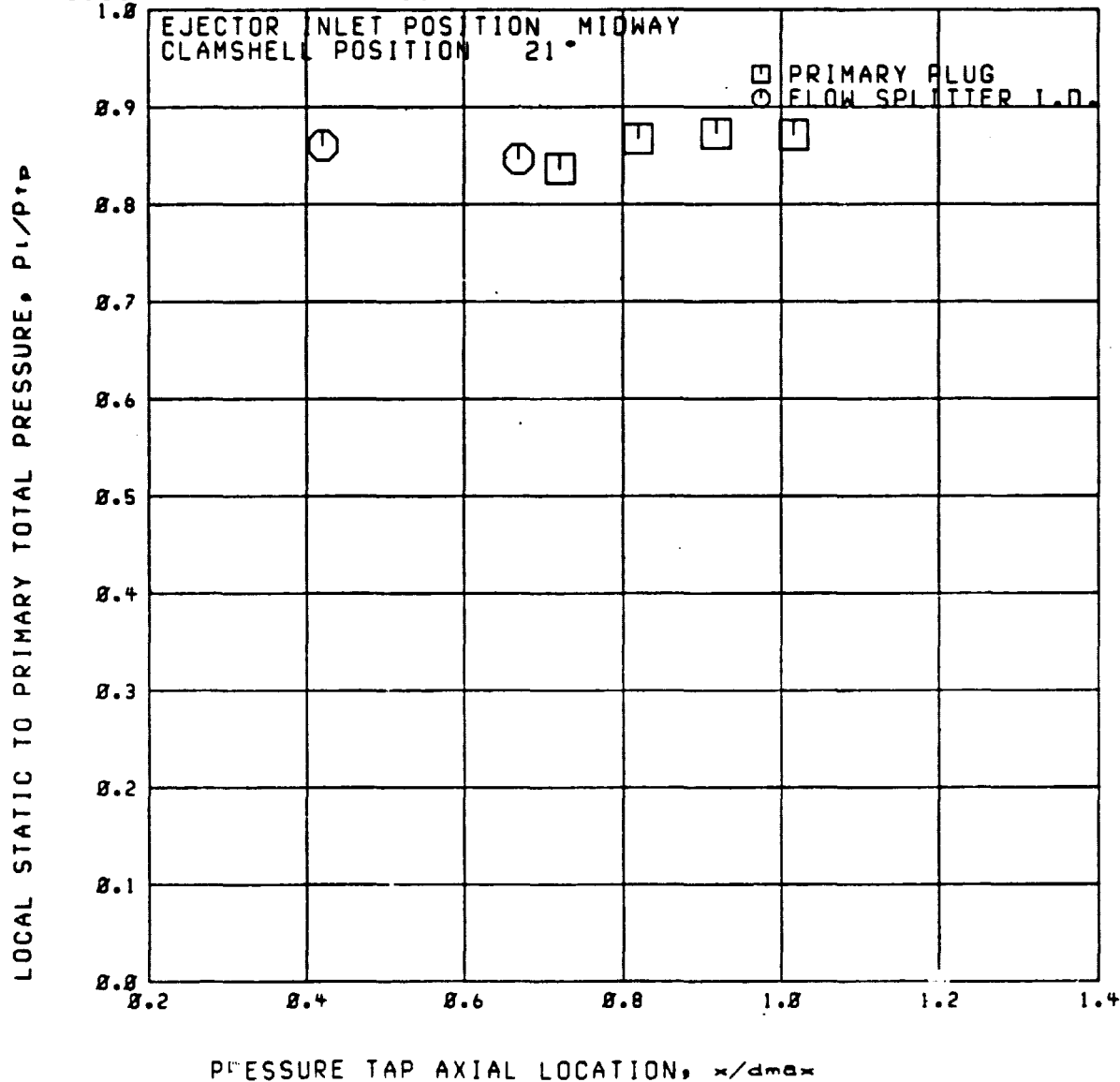
RDG=1513

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$

$P_{tr}/P_o = 1.814$

$P_{tr}/P_{tp} = 1.45$



Run 25

RDG=1513

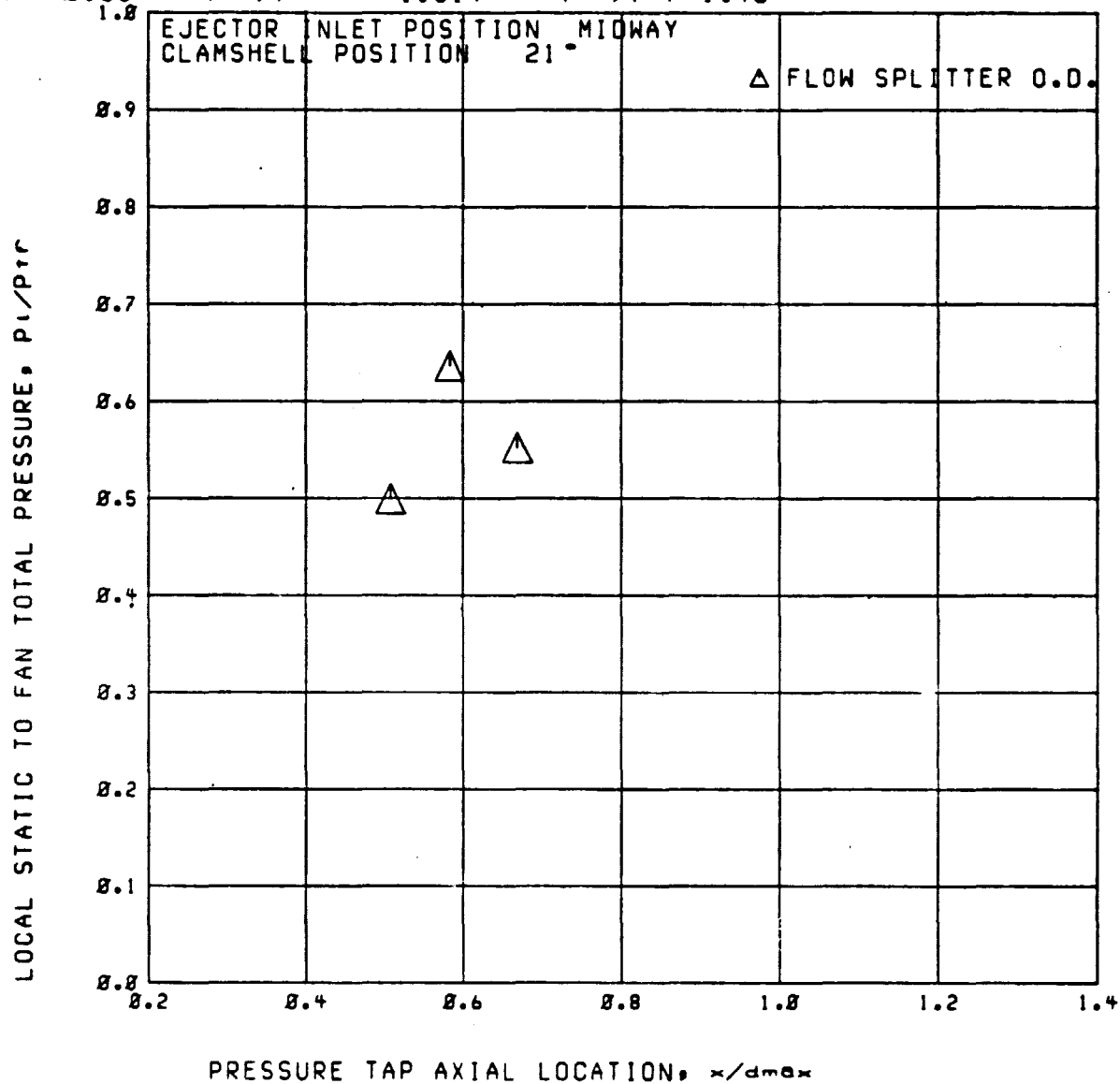
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 = 1.814$

$P_{tr}/P_{tp} = 1.45$





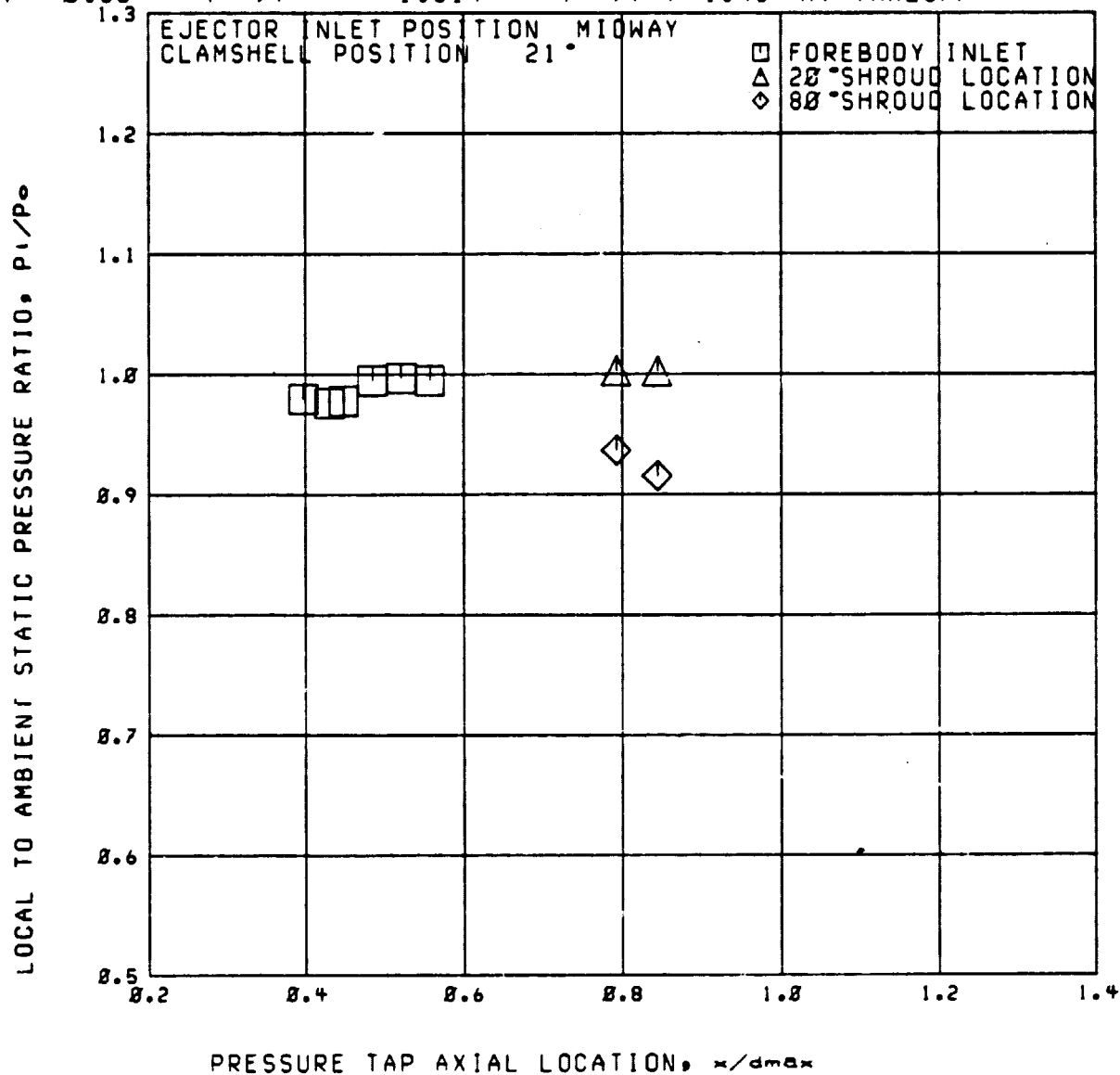
RUN 25

C3

RDG=1513

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 1.814$   $P_{tr}/P_{tp} = 1.45$  AT TAKEOFF



RUN 25

RDG=1514

C3

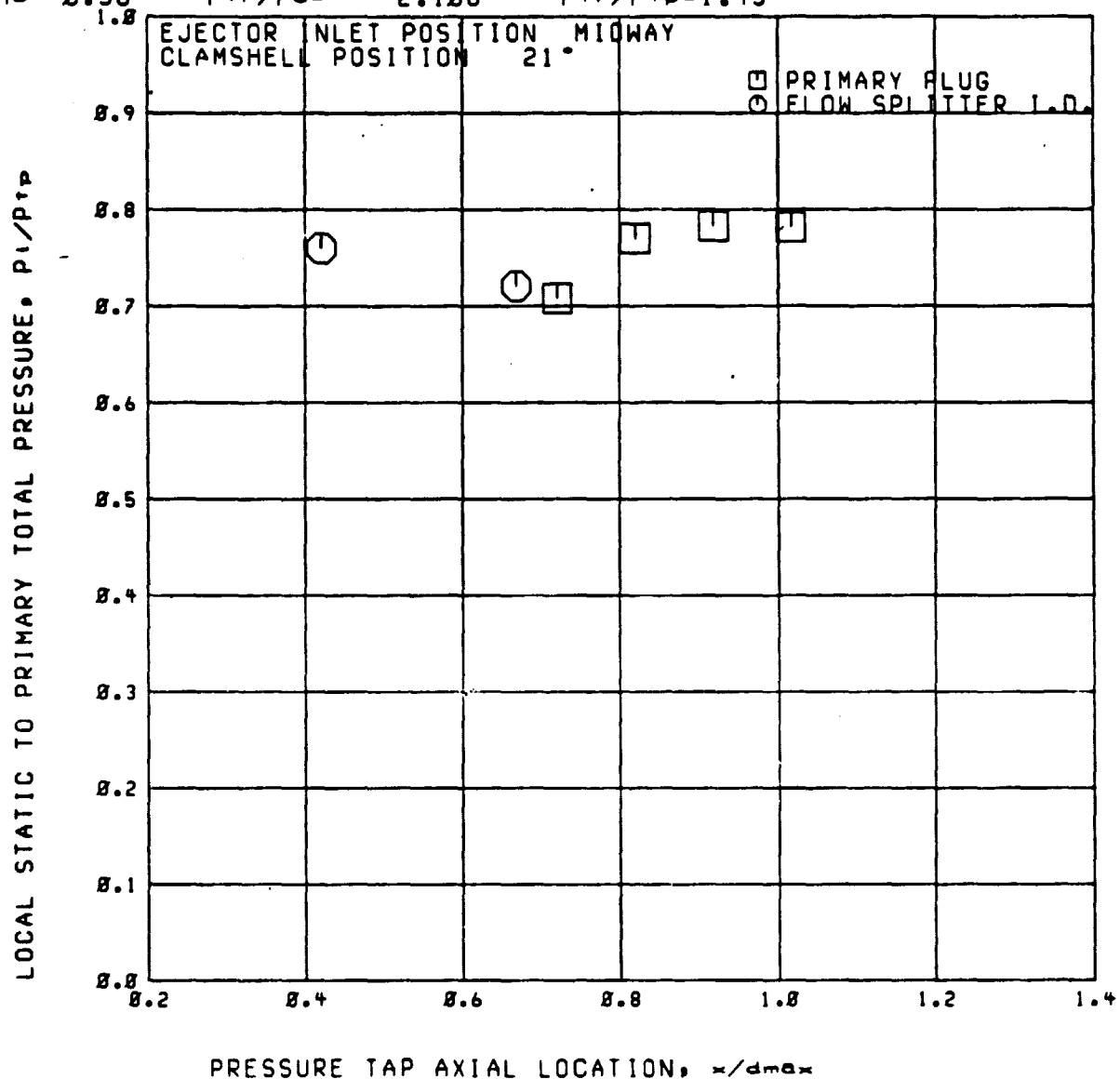
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$

$P_{tr}/P_o =$

2.106

$P_{tr}/P_{tp} = 1.43$



RUN 25

RDG=1514

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

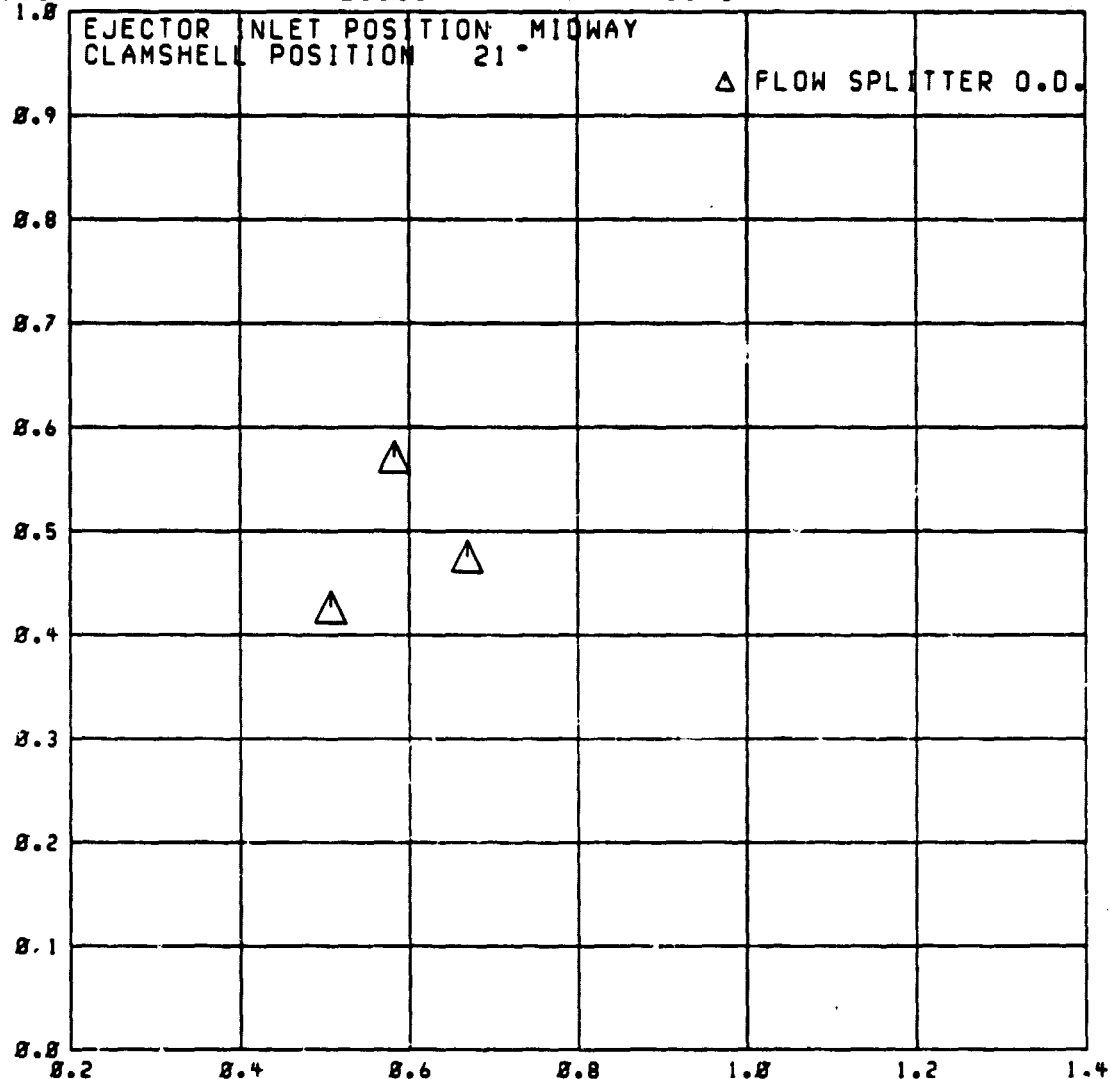
$M_0 = 0.36$

$P_{tr}/P_{02} =$

2.186

$P_{tr}/P_{tp} = 1.43$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_t/P_{tr}$



PRESSURE RATIO AXIAL LOCATION,  $x/d_{max}$

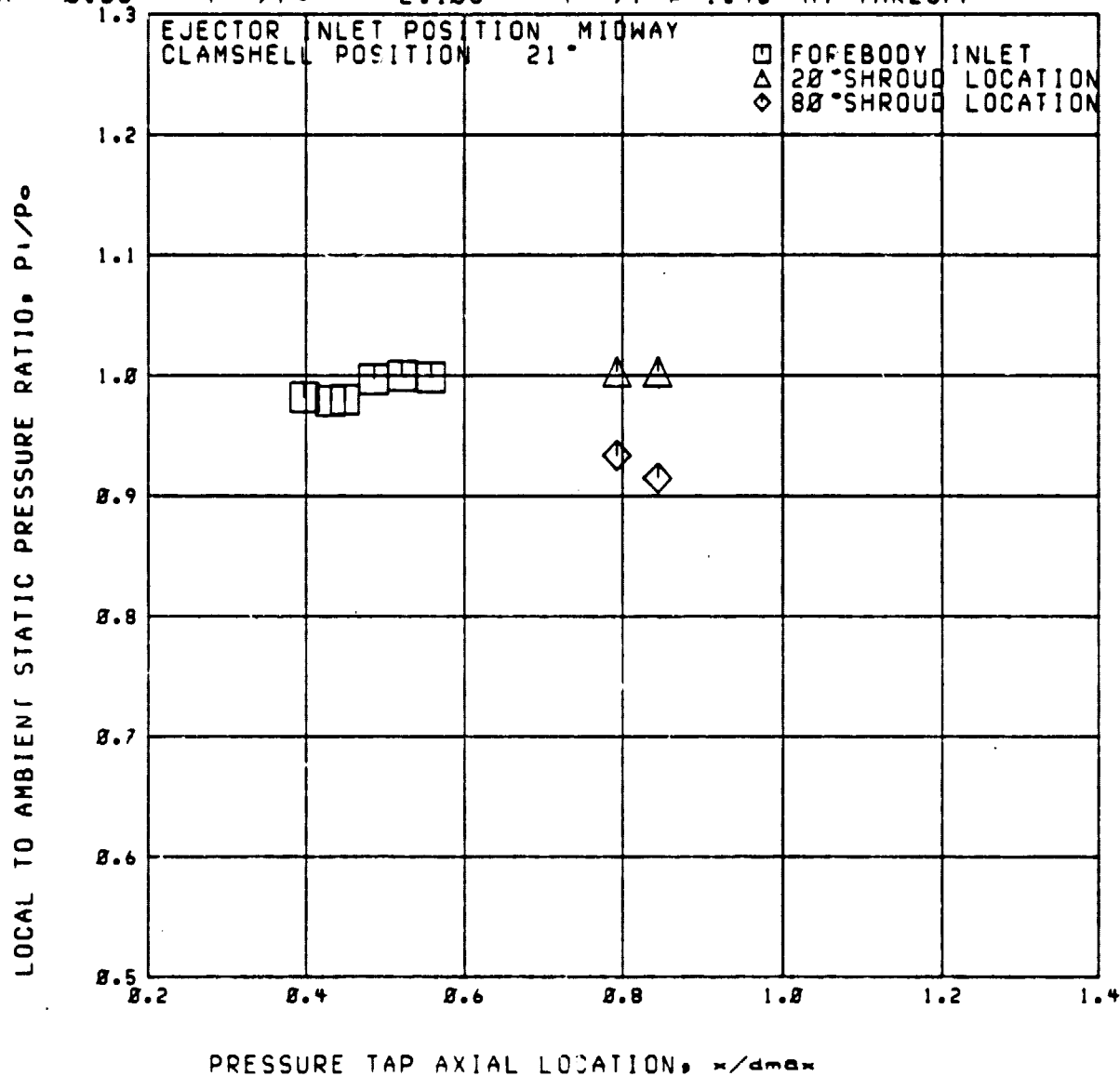
RUN 25

RDG=151+

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{ir}/P_o = 2.106$   $P_{ir}/P_{ip} = 1.43$  AT TAKEOFF



Run 25

RDG=1515

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

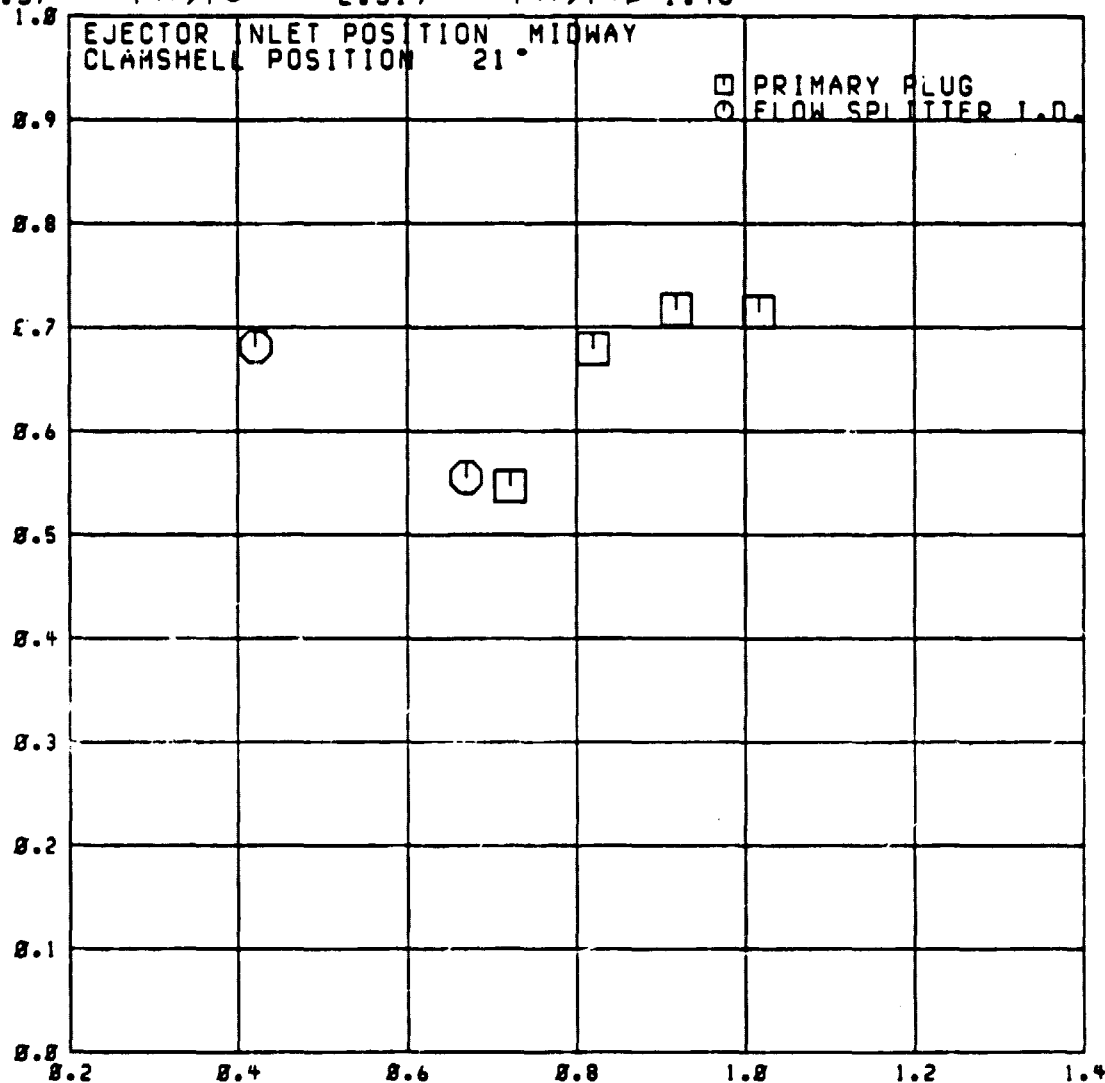
$M_0 = 0.37$

$P_{tr}/P_0 =$

2.519

$P_{tr}/P_{tp} = 1.46$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

RUN 25

RDG=1515

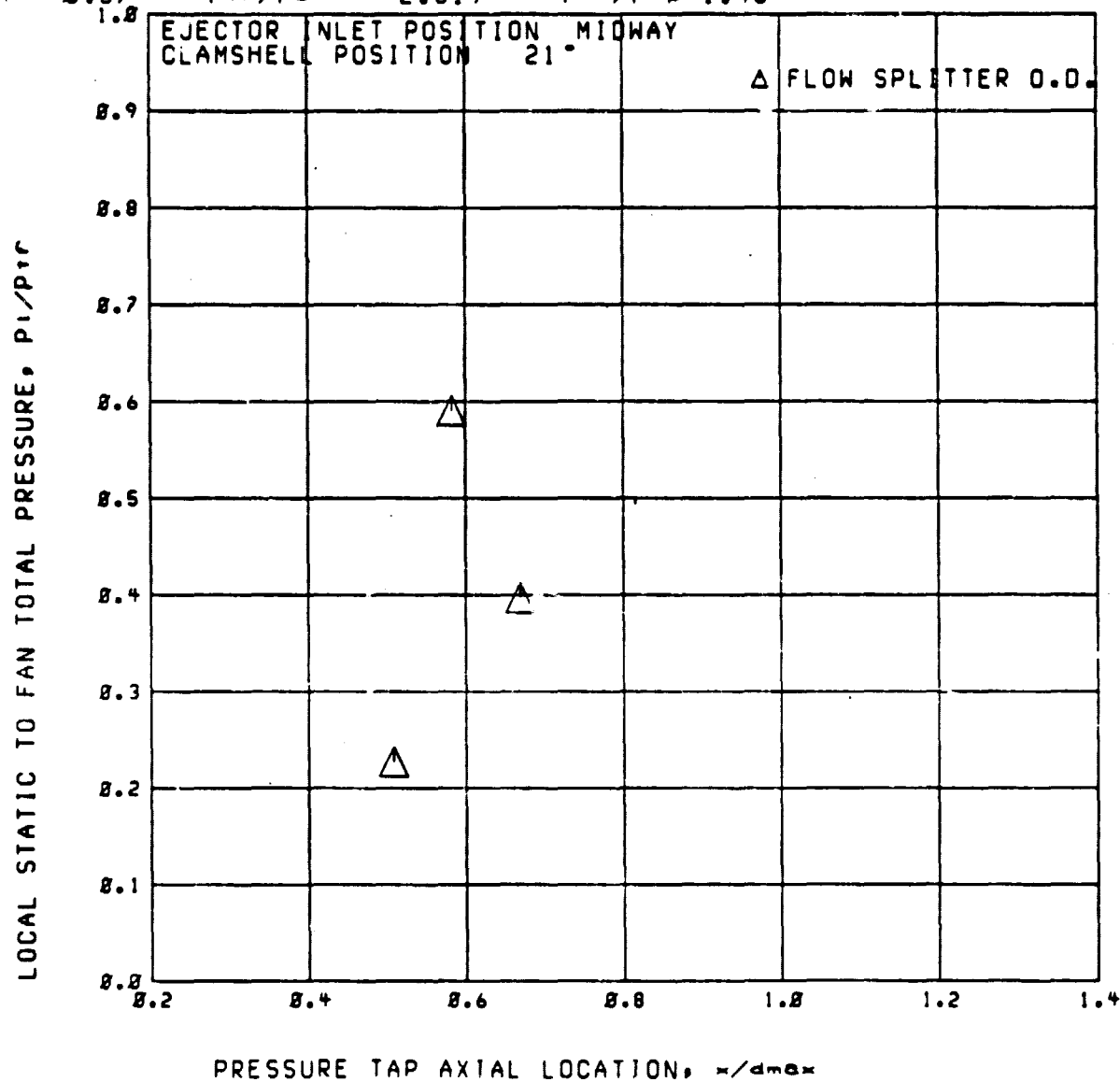
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.37$

$P_{tr}/P_{0x} = 2.519$

$P_{tr}/P_{tp} = 1.46$



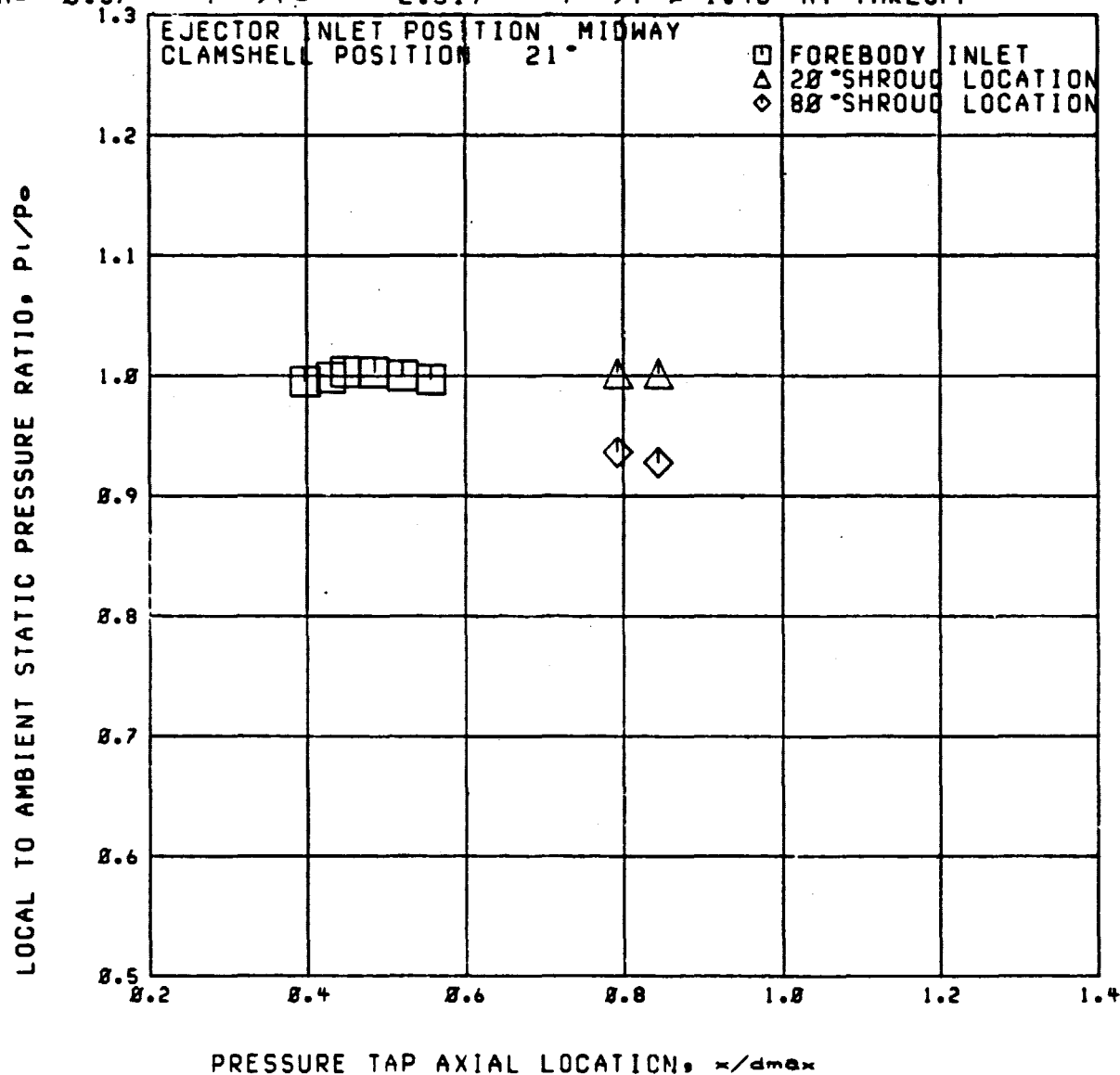
RUN 25

RDG=1515

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.37$   $P_{tr}/P_0 = 2.519$   $P_{tr}/P_{tr} = 1.46$  AT TAKEOFF



C-2

RUN 25

RDG=1516

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

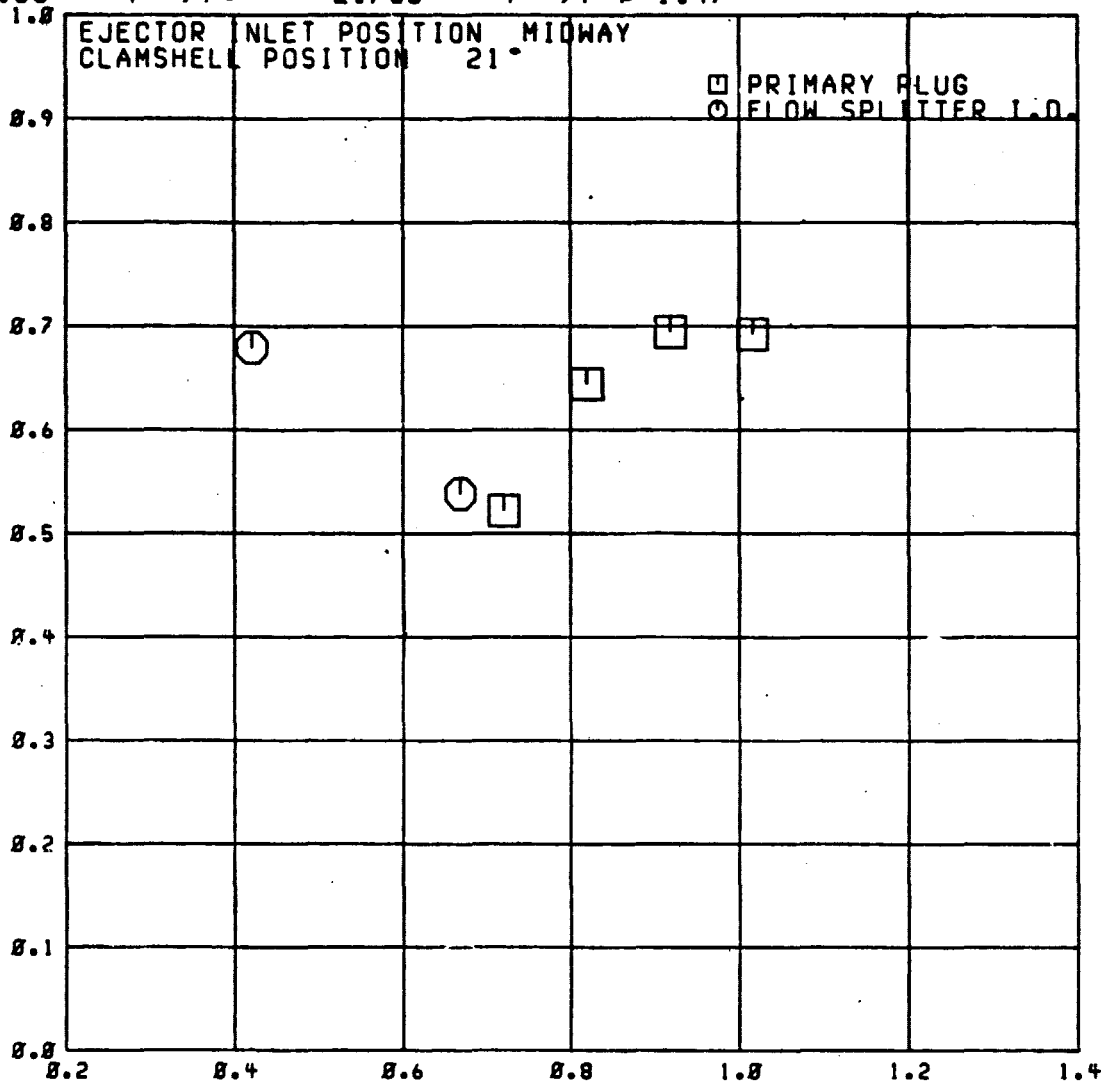
$M_0 = 0.36$

$P_{tr}/P_0 =$

2.756

$P_{tr}/P_{tp} = 1.47$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$



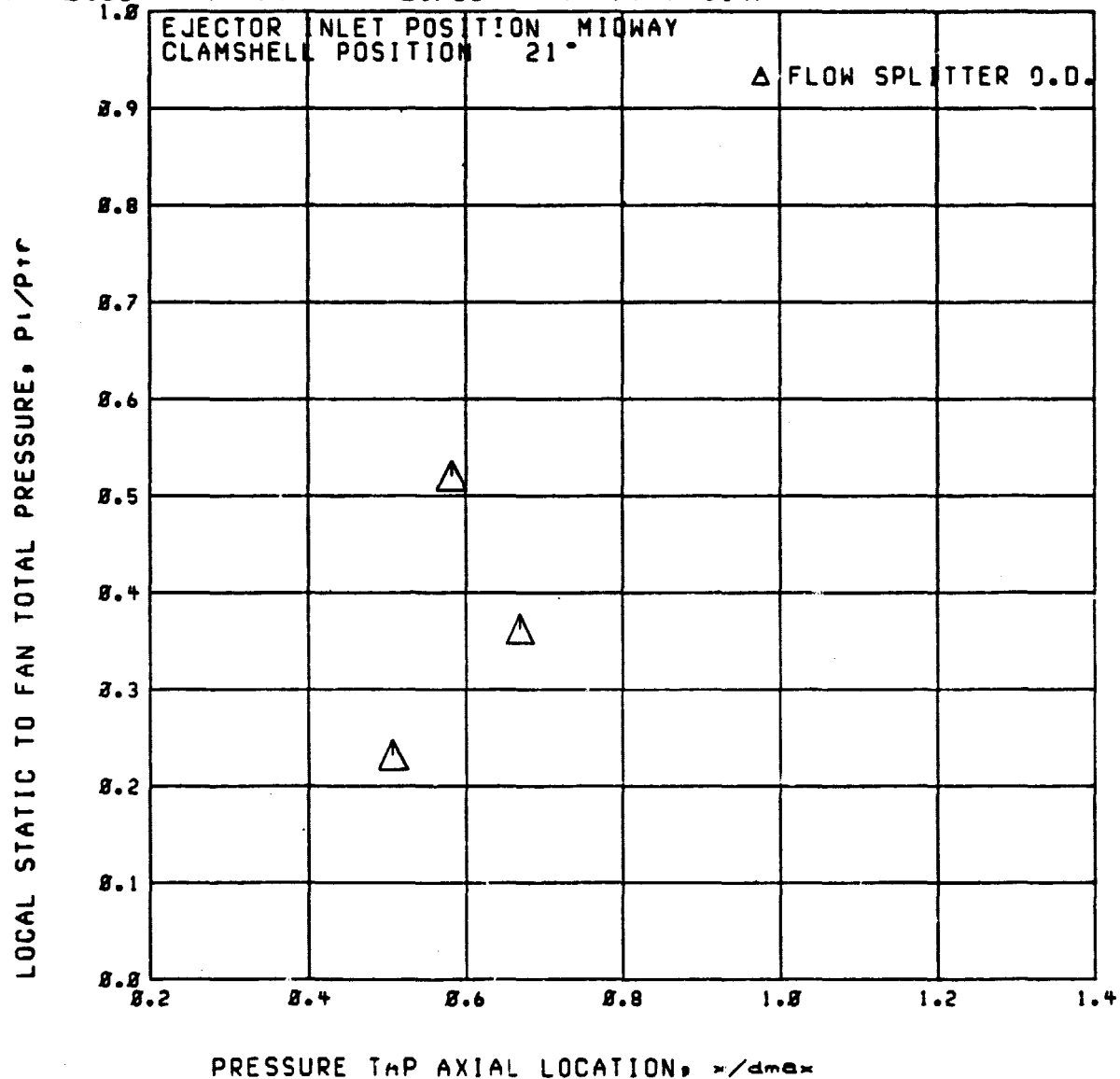
RUN 25

RDG=1516

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$   $P_{tr}/P_o = 2.756$   $P_{tr}/P_{tp} = 1.47$



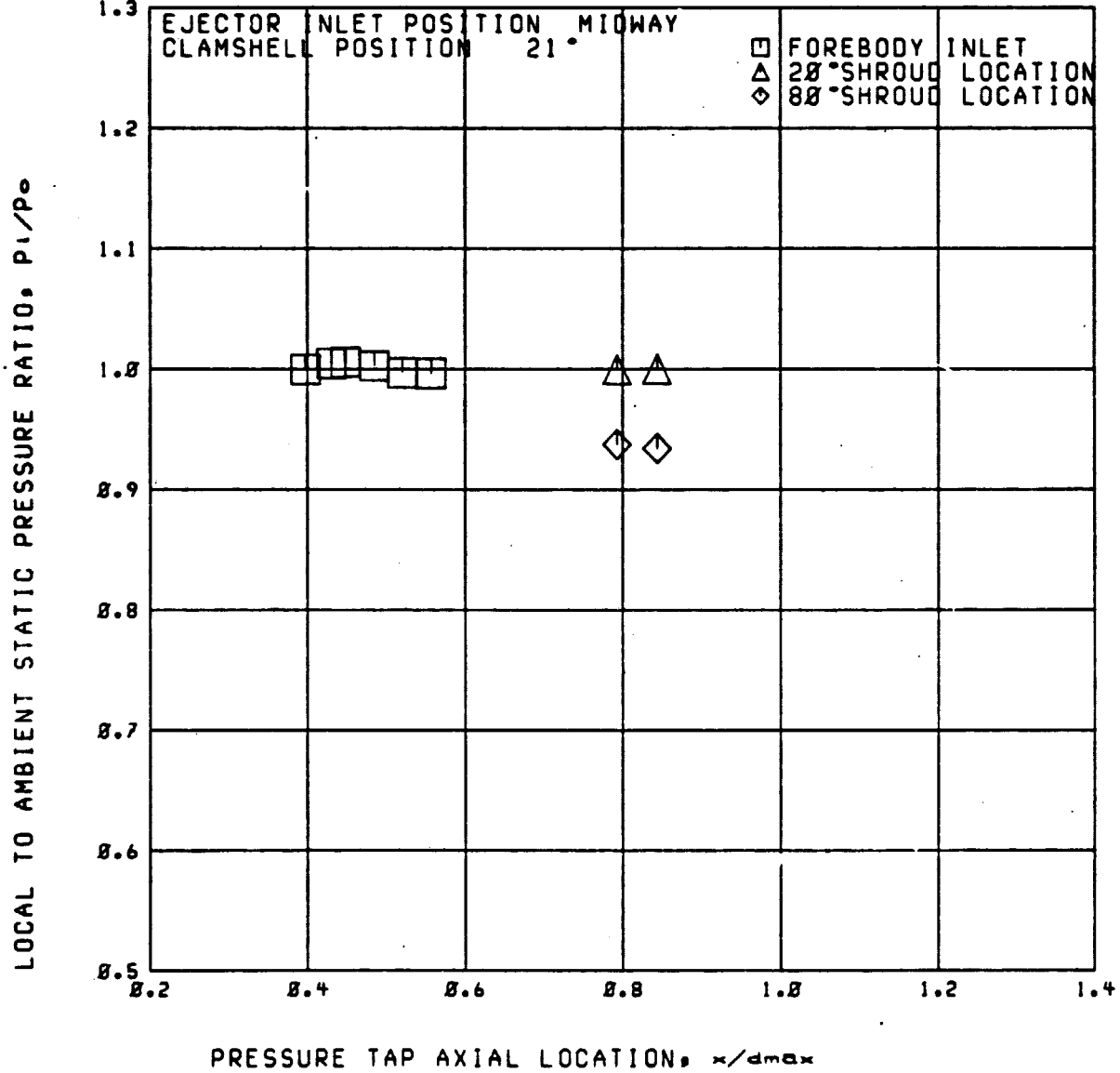
RUN 25

RDG=1516

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$   $P_{tr}/P_0 = 2.756$   $P_{tr}/P_{tr} = 1.47$  AT TAKEOFF



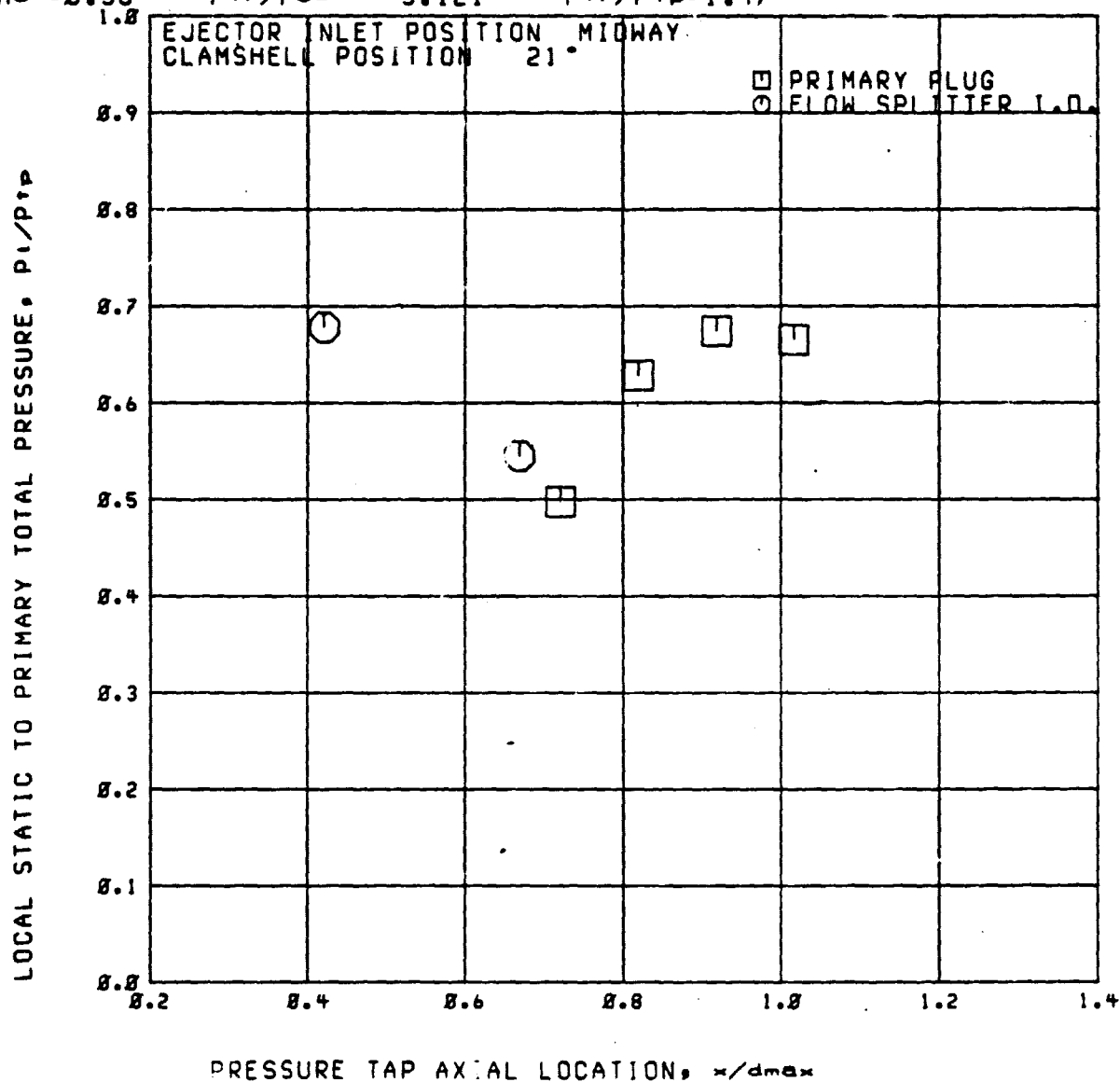
RUN 25

C3

RDG=1517

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$   $P_{tr}/P_o = 3.121$   $P_{tr}/P_{tp} = 1.47$



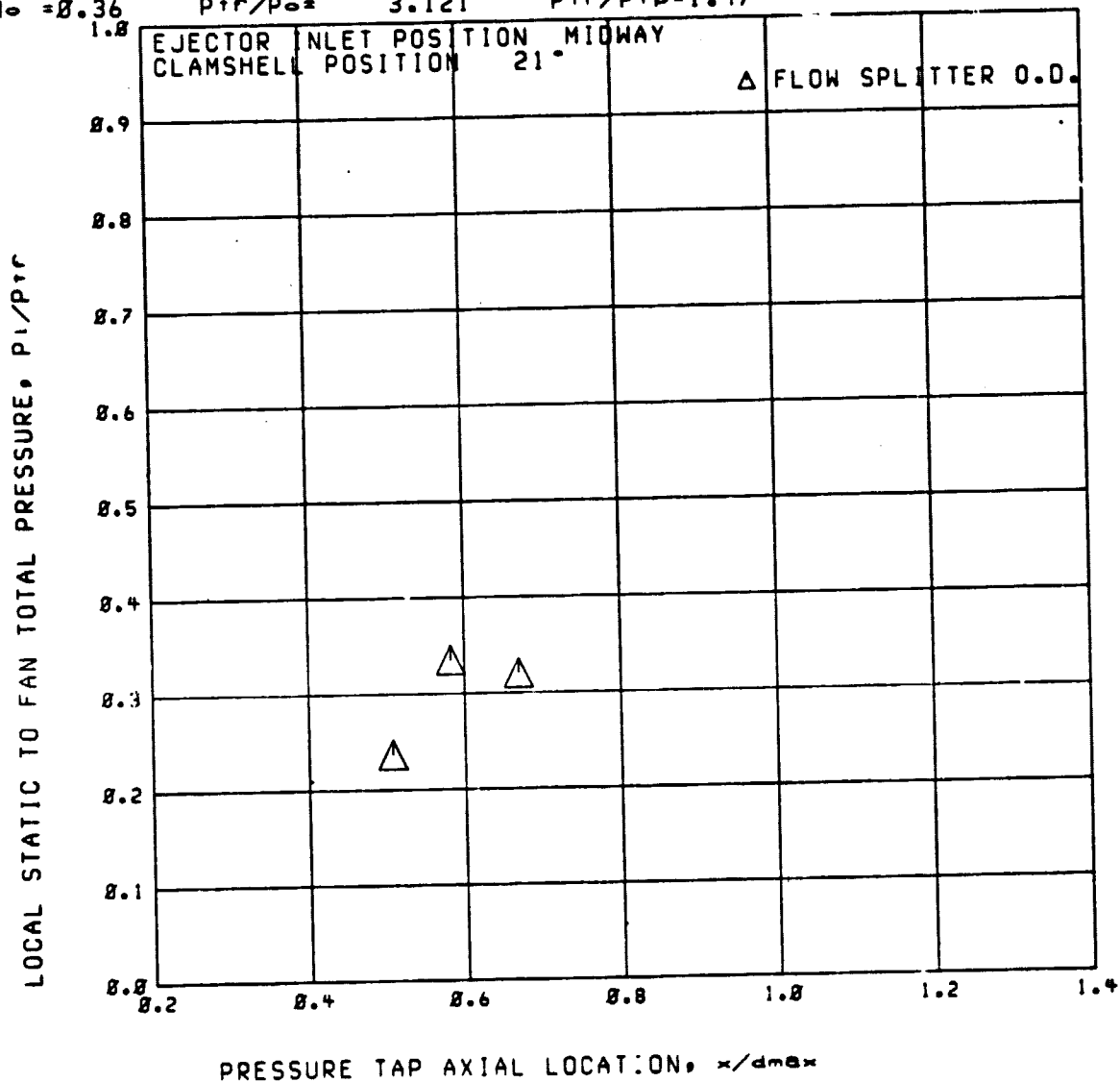
RUN 25

RDG=1517

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 3.121$   $P_{tr}/P_{tr} = 1.47$



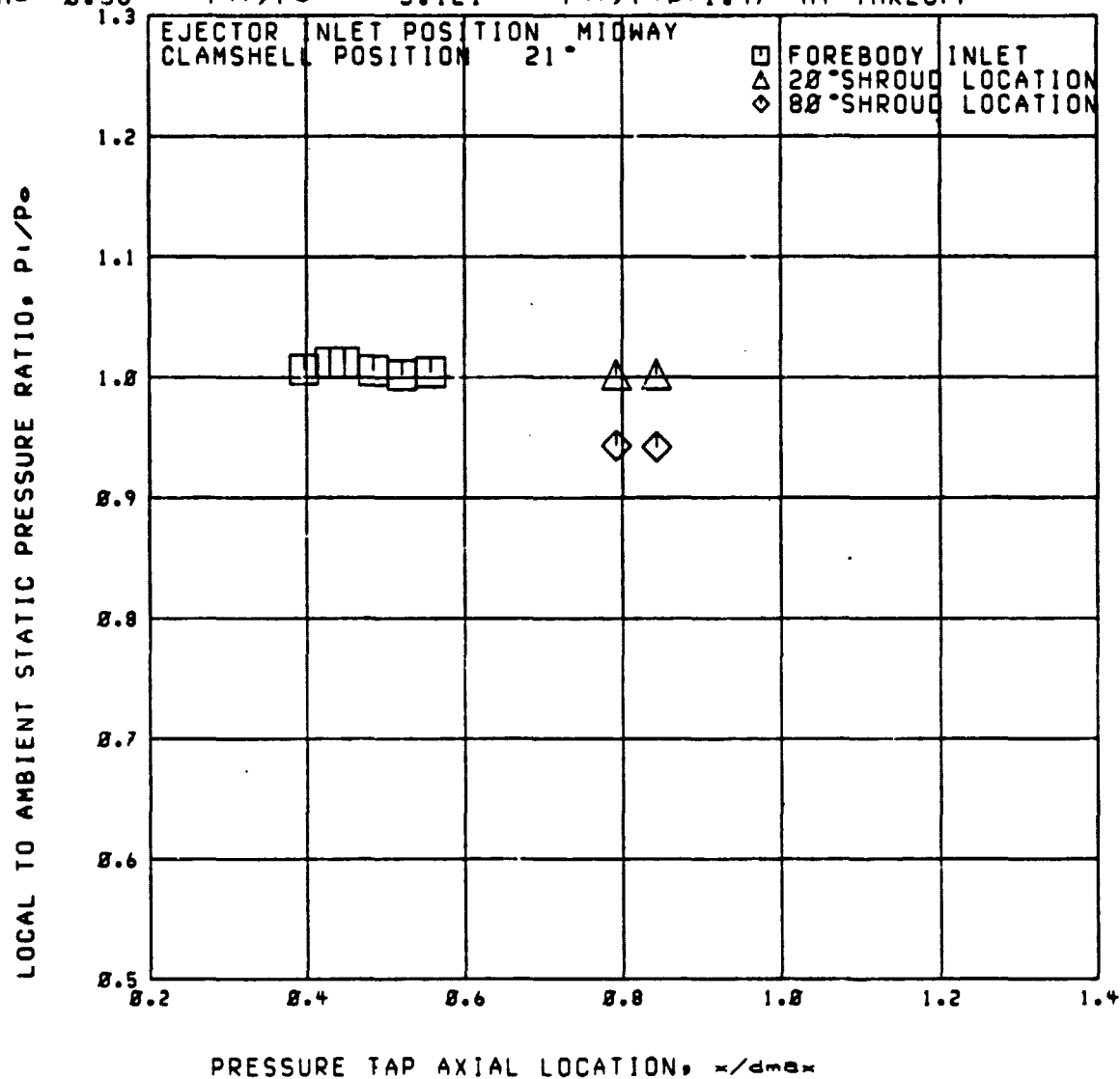
RUN 25

RDG=1517

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{ir}/P_o = 3.121$   $P_{ir}/P_{ip} = 1.47$  AT TAKEOFF



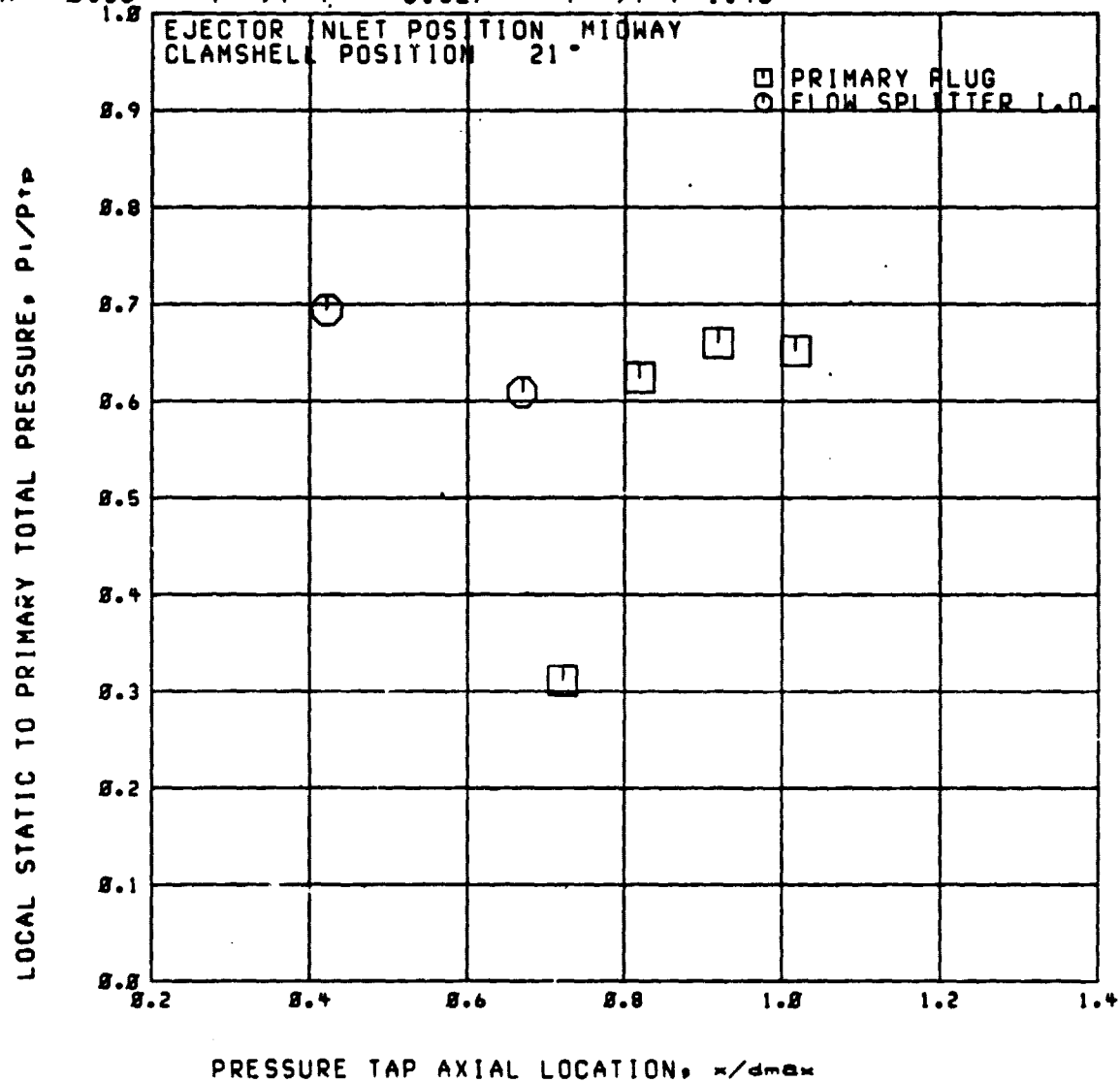
RUN 25

RDG=1518

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.36$   $P_{tr}/P_{of} = 3.527$   $P_{tr}/P_{tp} = 1.46$



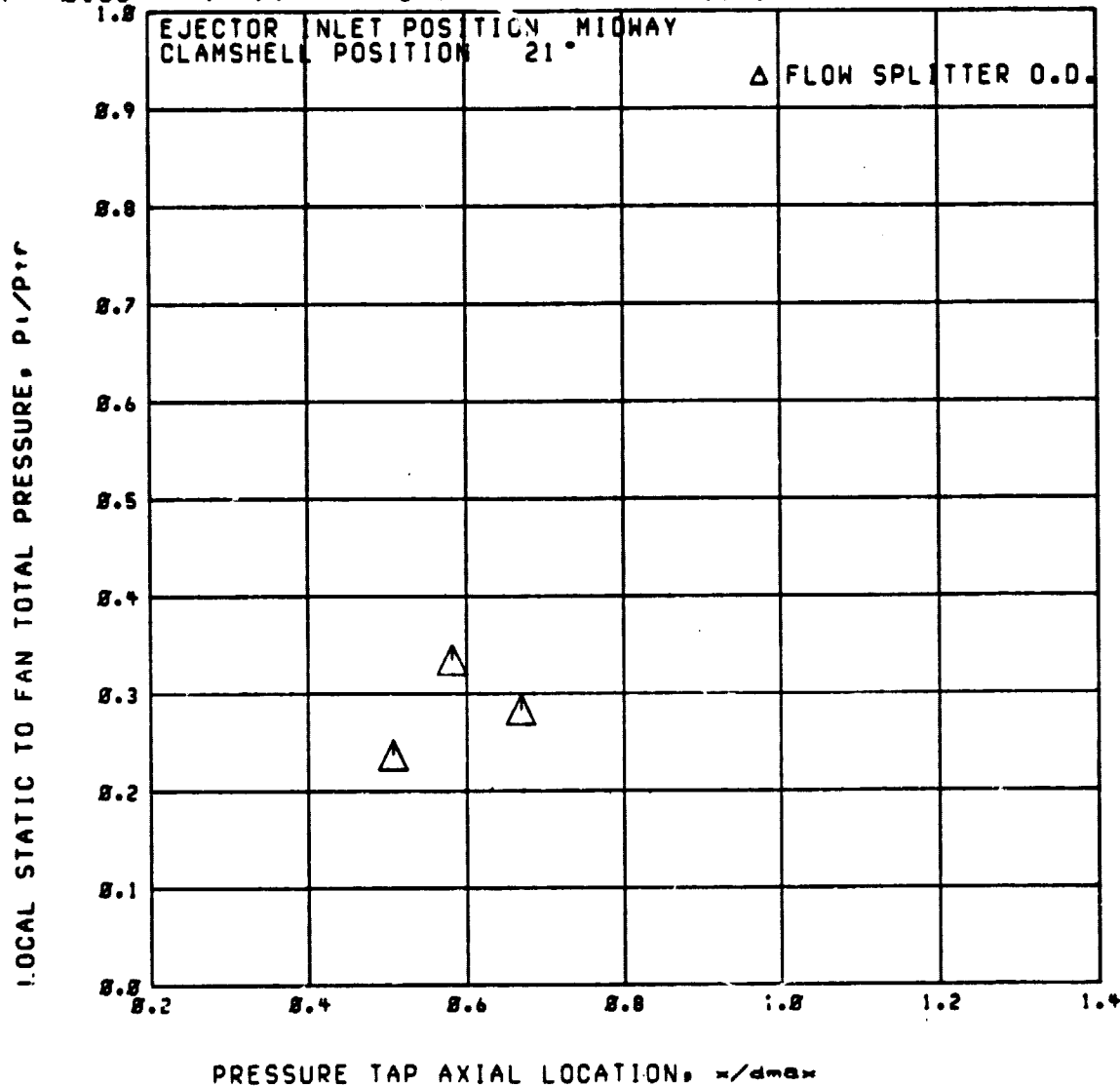
RUN 25

RDG=1518

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.36$   $P_{tr}/P_o = 3.527$   $P_{tr}/P_{tp} = 1.46$



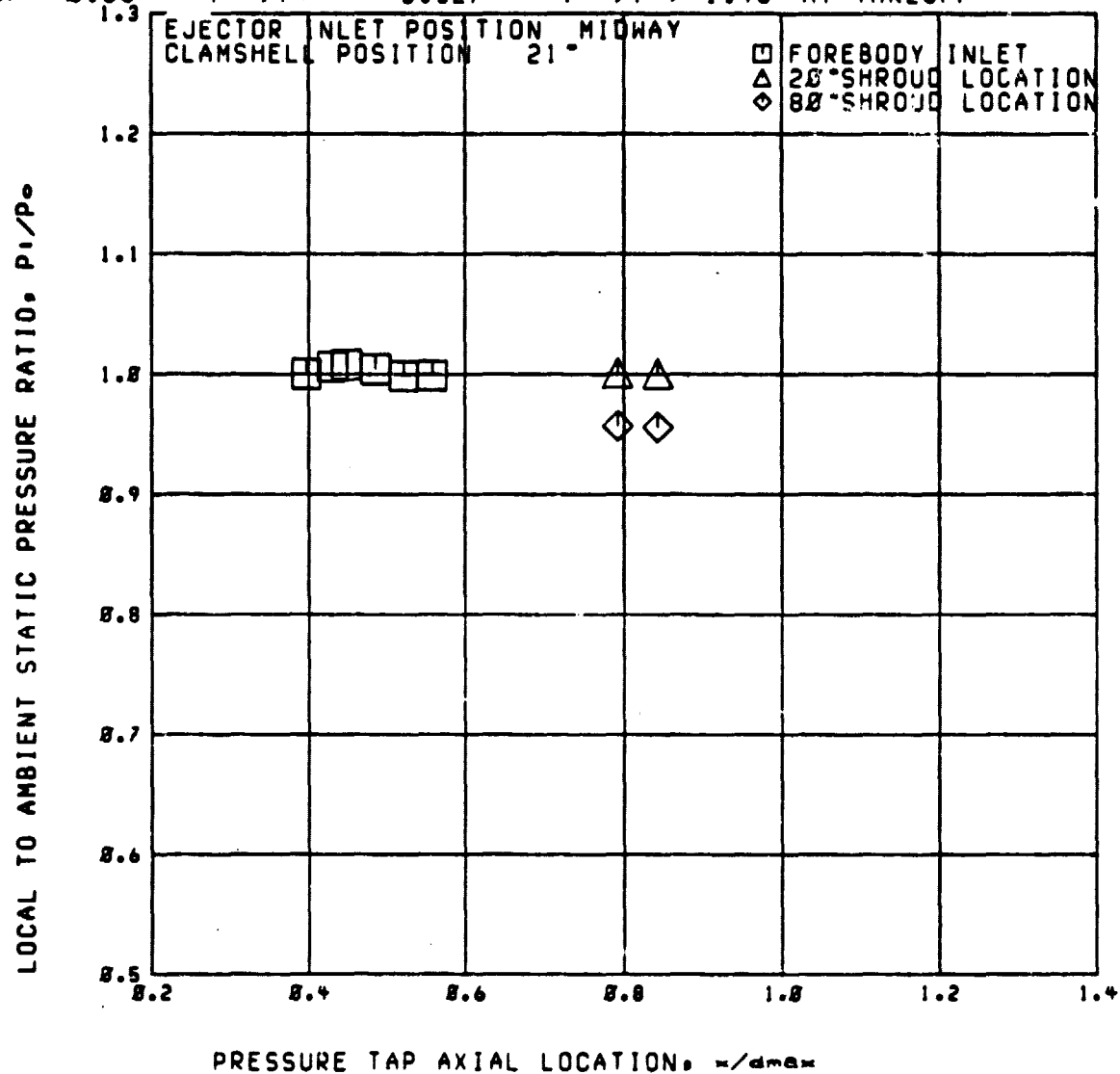
RUN 25

RDG=1518

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$   $P_{1r}/P_{0r} = 3.527$   $P_{1r}/P_{1p} = 1.46$  AT TAKEOFF





RUN 25

C9

RDG=1519

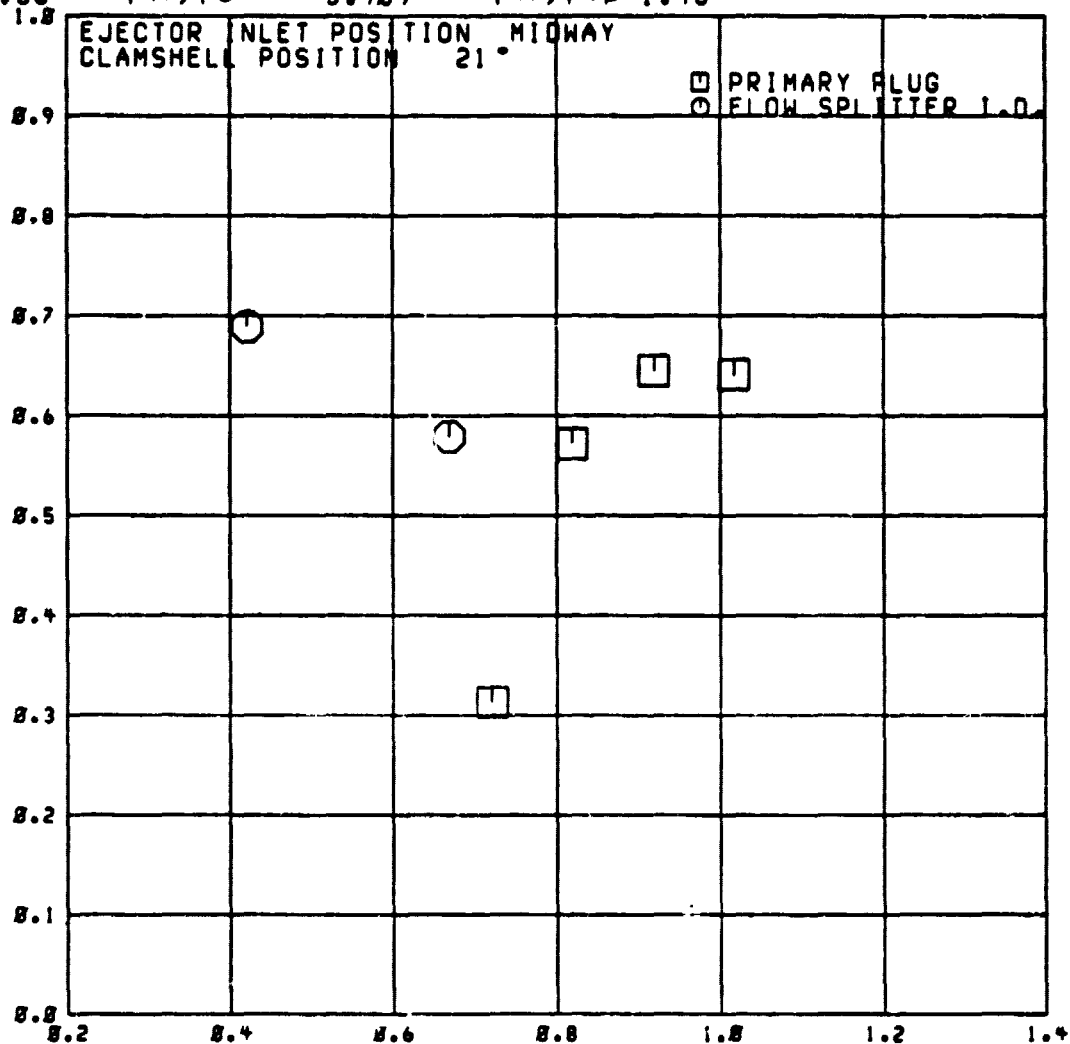
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 8.36$

$P_{tr}/P_{\infty} = 3.989$

$P_{tr}/P_{tp} = 1.46$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

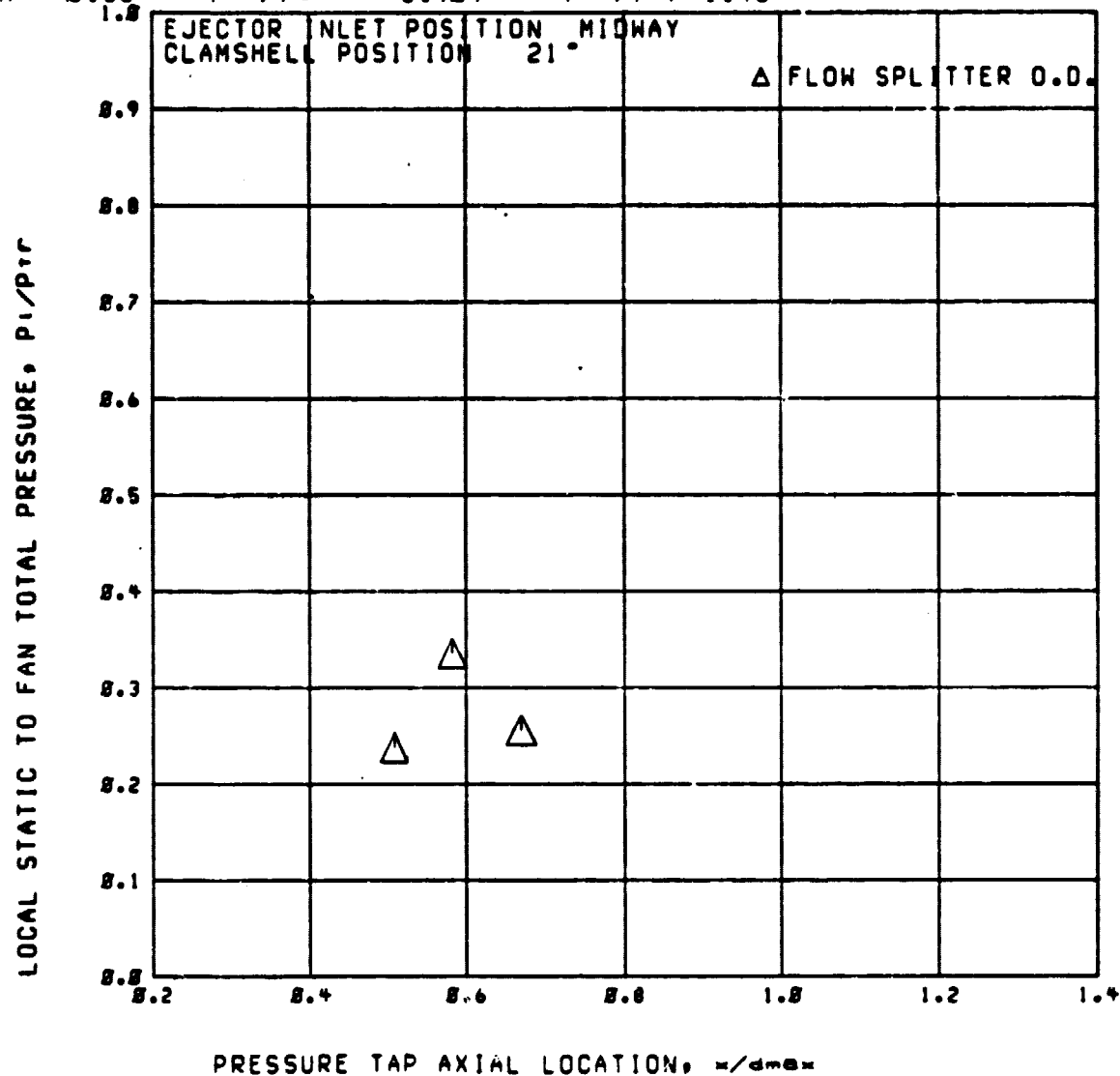
Run 25

RDG=1519

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

M = 0.36  $P_{tr}/P_{os} = 3.989$   $P_{tr}/P_{tp} = 1.46$



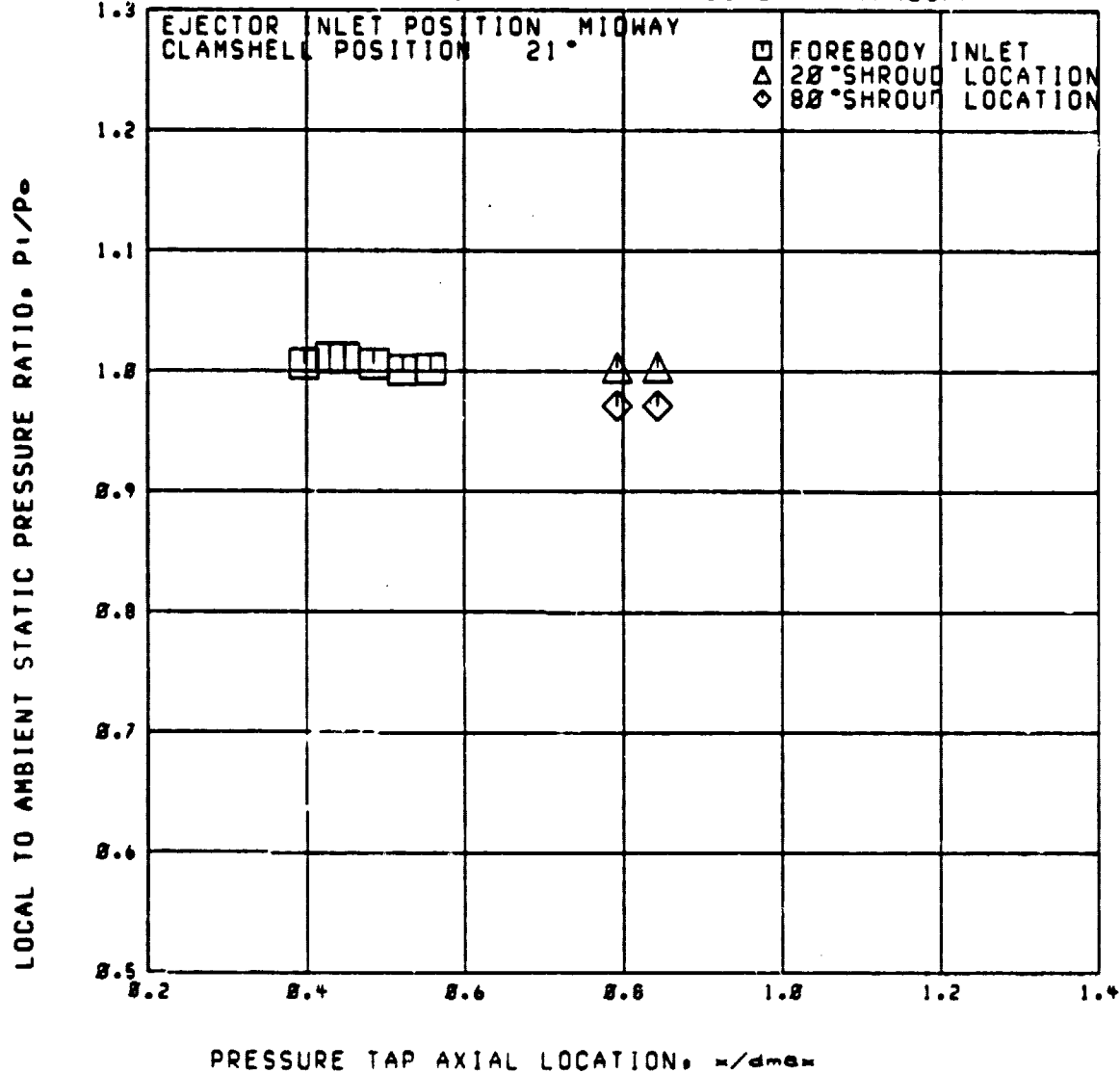
RUN 25

RDG=1519

C3

EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_e = 0.36$   $P_{tr}/P_o = 3.989$   $P_{tr}/P_{tr} = 1.46$  AT TAKEOFF



RDG 1528-1560

C3

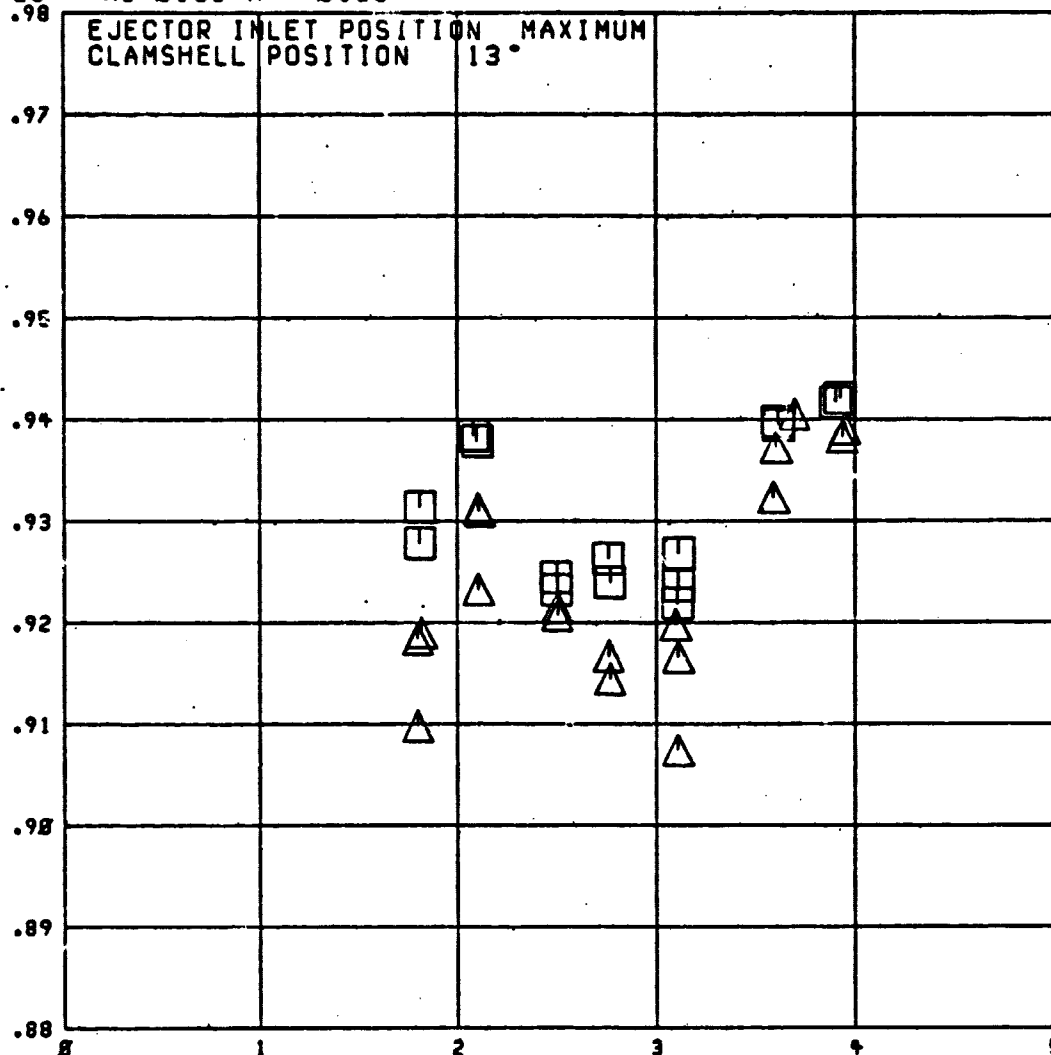
TAKEOFF

RUN 26

$M_0 = 0.36$   $M_e = 0.36$

$P_{tr}/P_{tp} = \square = 1.46$   
 $\Delta = 1.78$

NOZZLE GROSS THRUST COEFFICIENT, CFP1



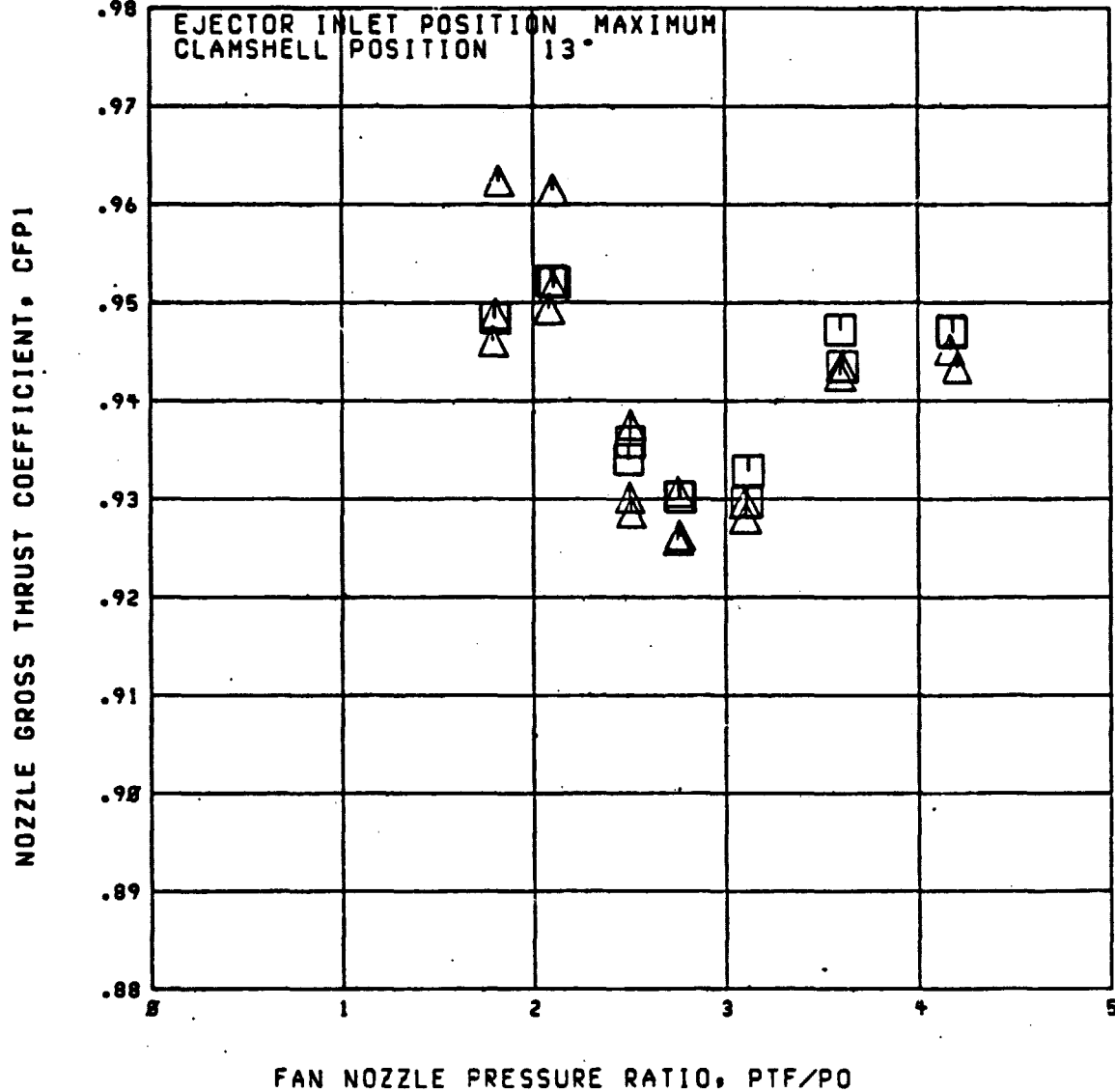
FAN NOZZLE PRESSURE RATIO, PTF/PO

RDG. 1561-1592

C3  
TAKEOFF

$P_{t0}/P_{t\infty} = \square = 1.46$   
 $\Delta = 1.78$

RUN 26  $M_0 = 8$   $M_e = 8.83$



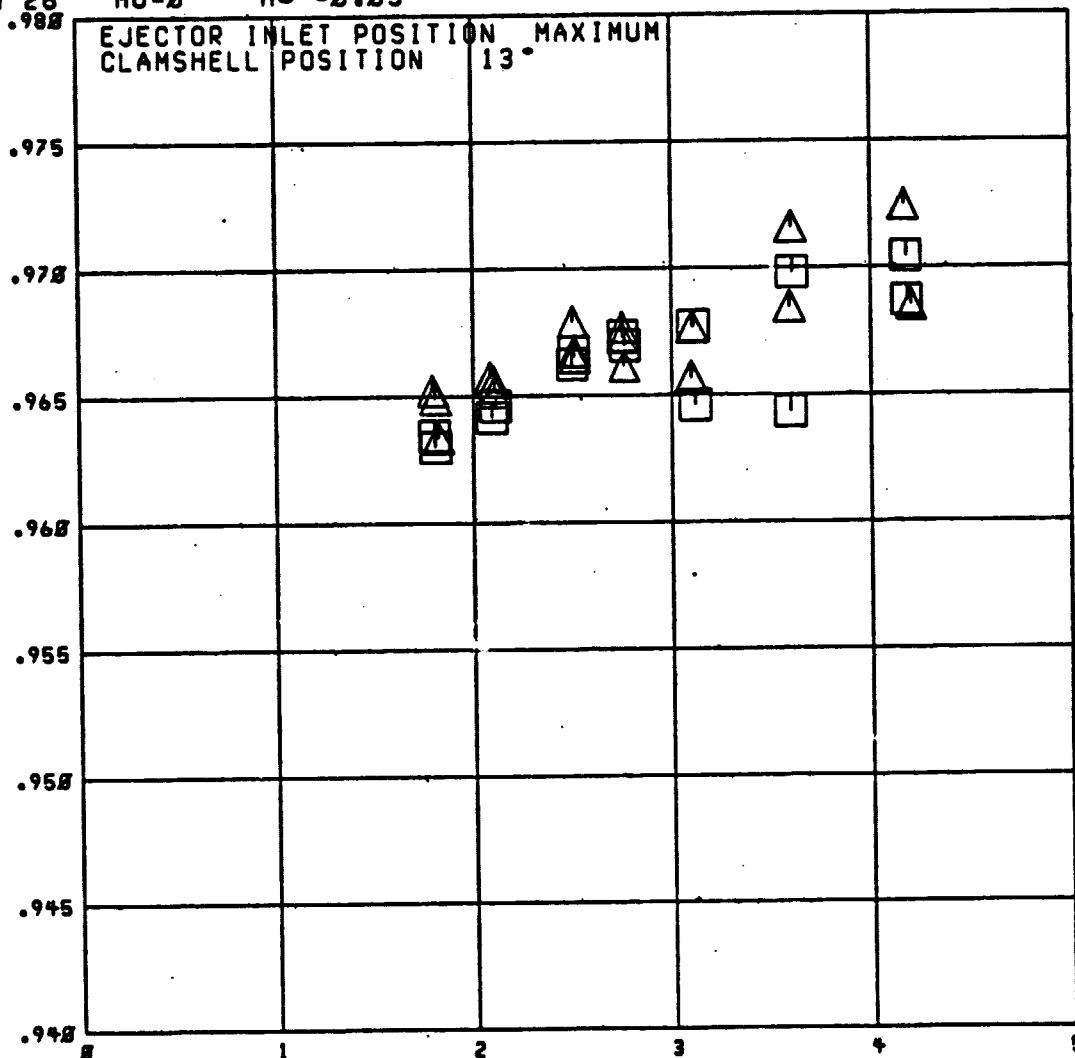
RDG 1561-1592

C3  
TAKEOFF  
RUN 26

MO=8 M=8.83

$P_{tr}/P_{tr} = \square = 1.46$   
 $\Delta = 1.78$

FAN-NOZZLE FLOW COEFFICIENT, CDF



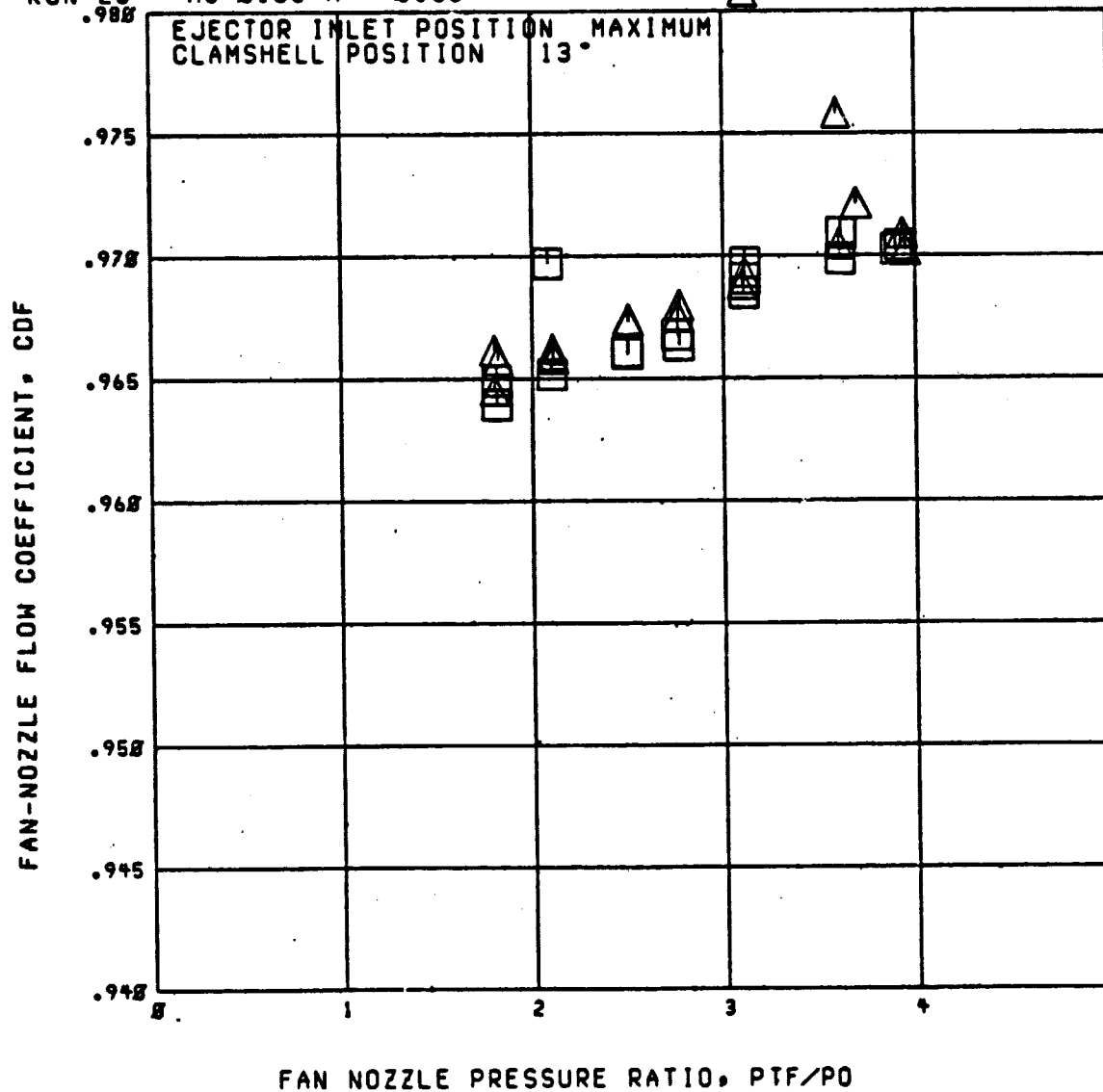
FAN NOZZLE PRESSURE RATIO, PTF/PO

ROG. 1528-1560

C3  
TAKEOFF

$P_{tr}/P_{tr} = \square = 1.46$   
 $\Delta = 1.78$

RUN 26  $M_0 = 0.36$   $M_e = 0.36$



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OF POOR QUALITY

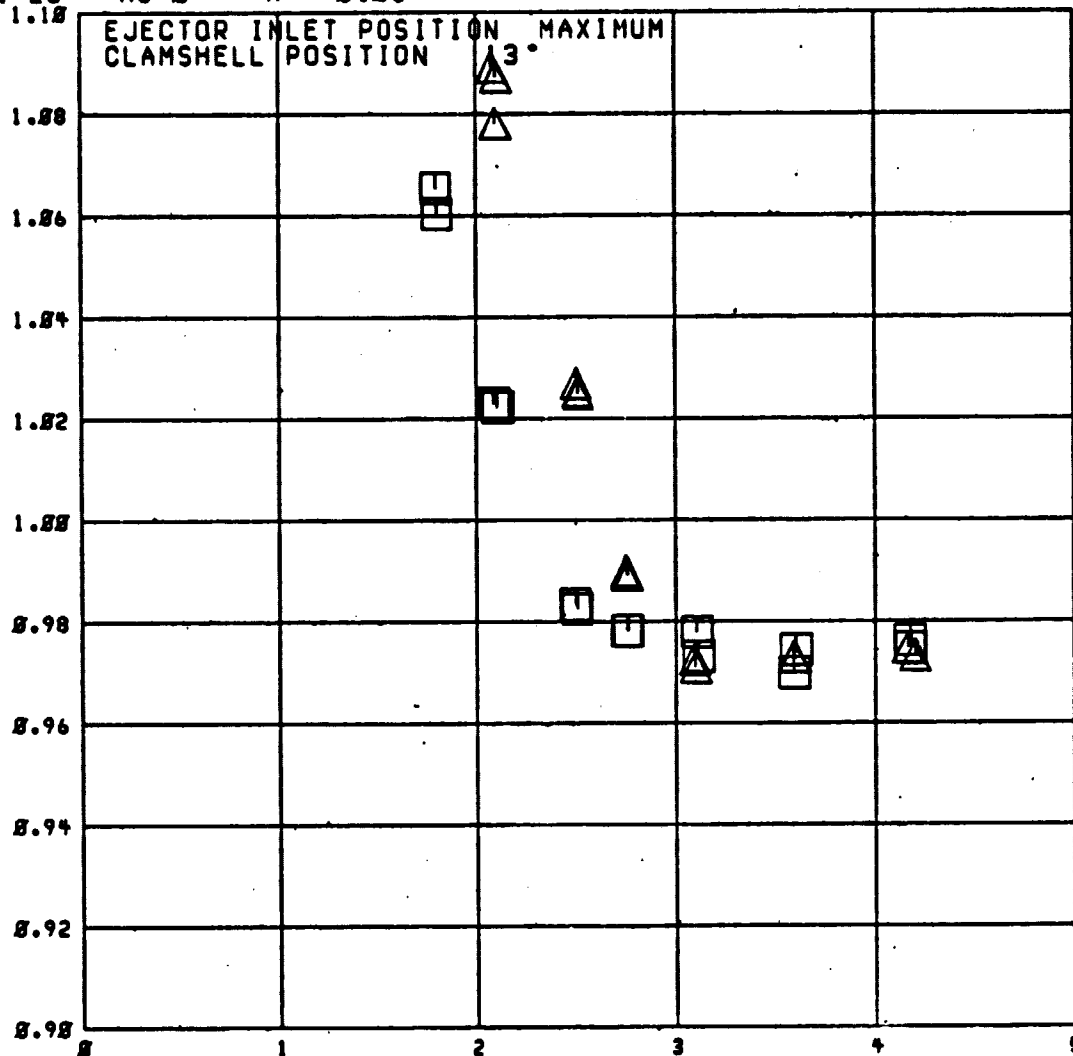
RDG. 1561-1592

C3  
TAKEOFF

$P_{t1}/P_{t2} = \square = 1.46$   
 $\Delta = 1.78$

RUN 26  $M_0 = 8$   $M = 8.23$

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP



FAN NOZZLE PRESSURE RATIO, PTF/PO



RDG. 1528-1560

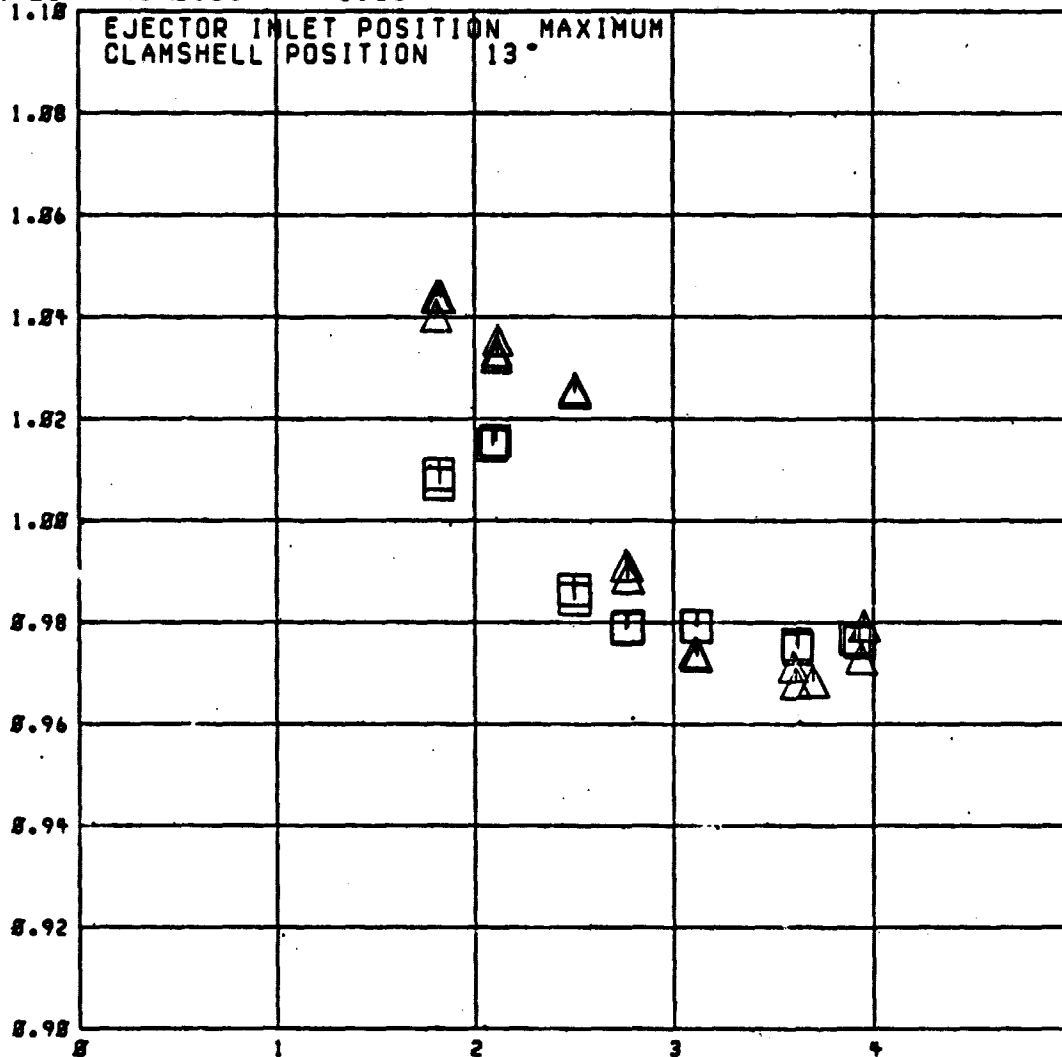
C3

TAKEOFF

RUN 26  $M_0 = 0.36$   $M_e = 0.36$

$P_{t0}/P_{t2} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP



FAN NOZZLE PRESSURE RATIO, PTF/PO

RUN 26

RDG=1578

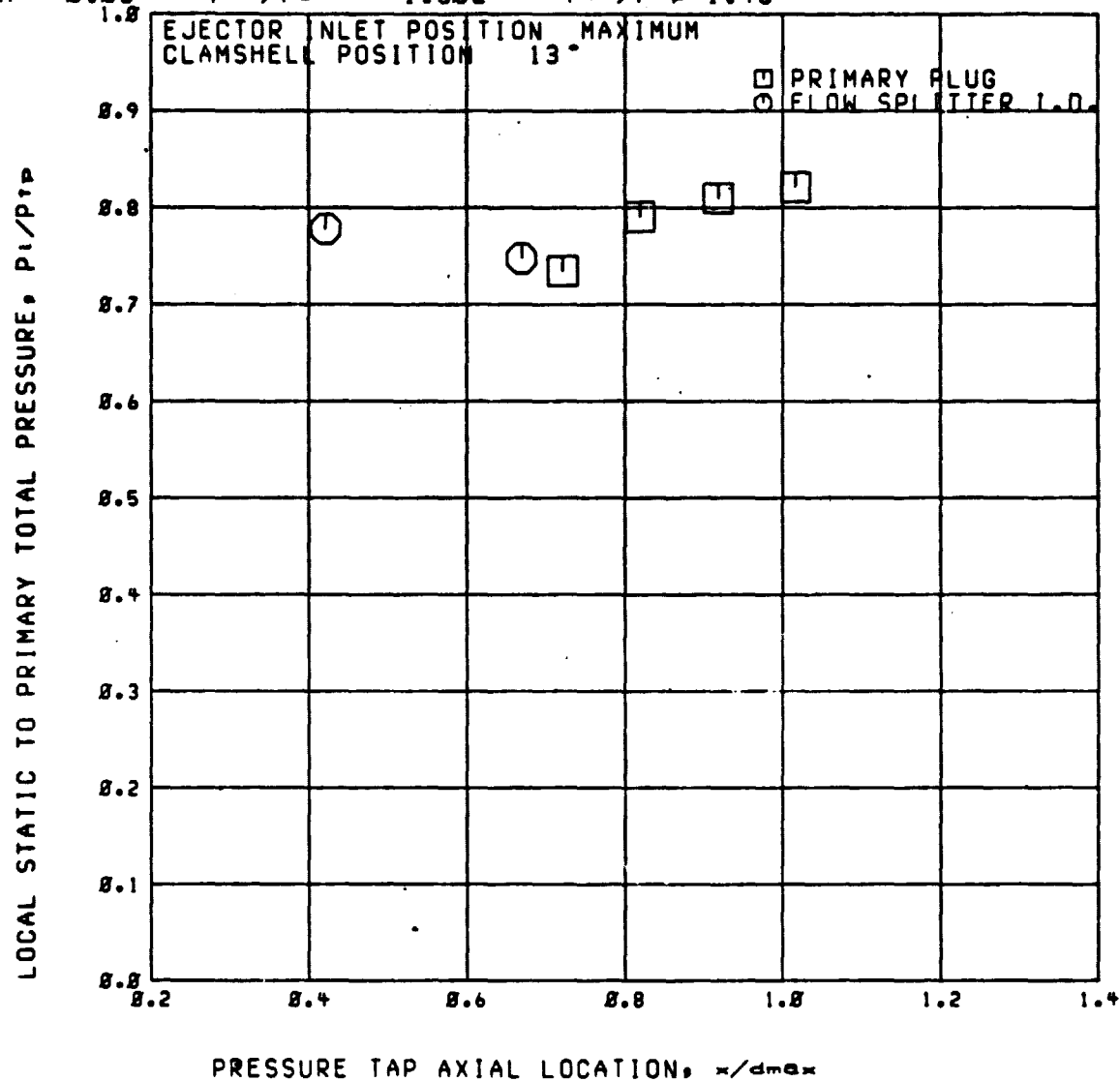
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.83$

$P_{tr}/P_0 = 1.882$

$P_{tr}/P_{tp} = 1.46$



RUN 26

RDG=1578

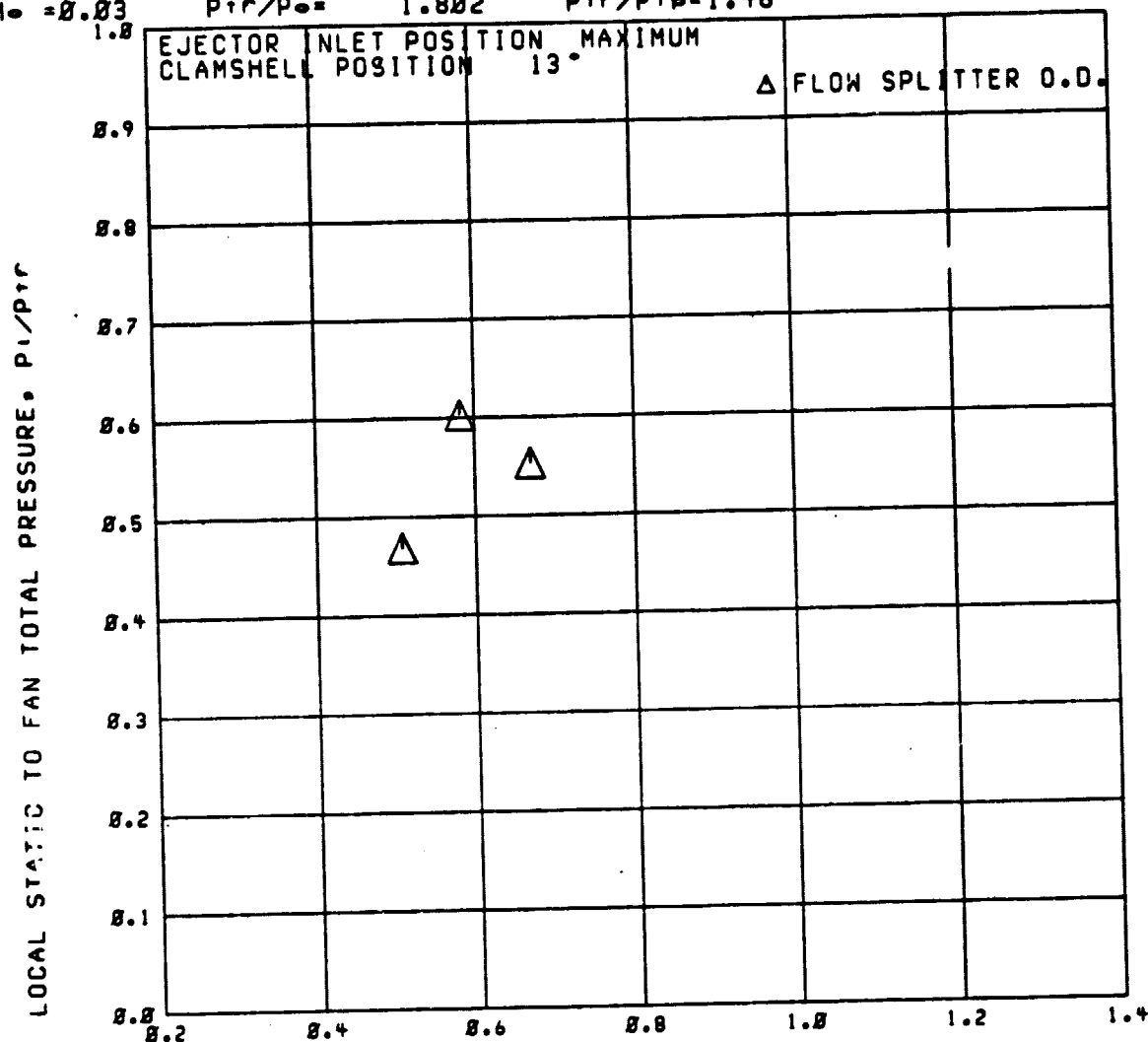
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.03$

$P_{tr}/P_0 = 1.802$

$P_{tr}/P_{tr} = 1.46$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

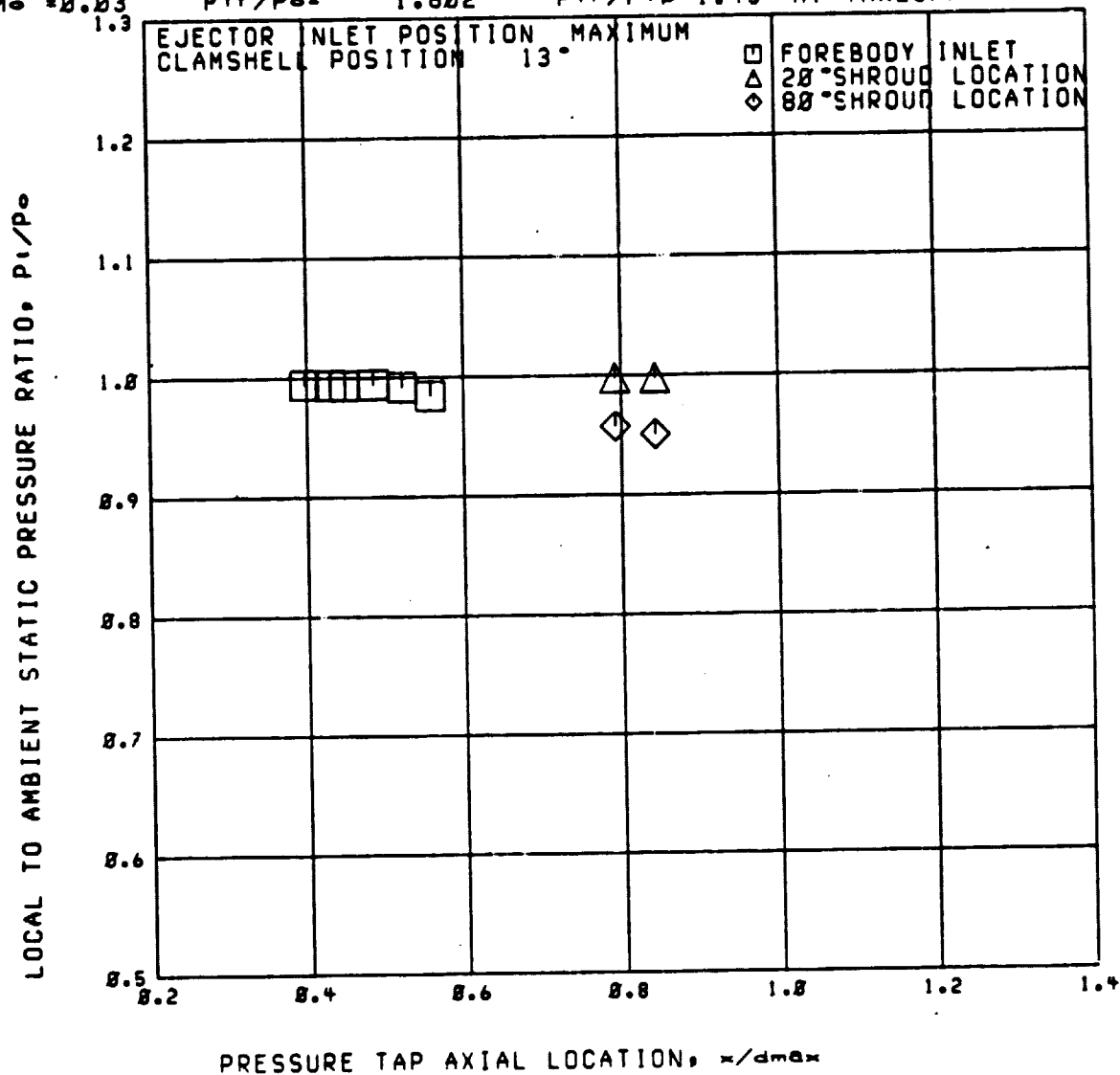
RUN 26

RDG=1578

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.03$   $P_{tr}/P_0 = 1.802$   $P_{tr}/P_{tr} = 1.46$  AT TAKEOFF



Run 26

RDG=1579

C3

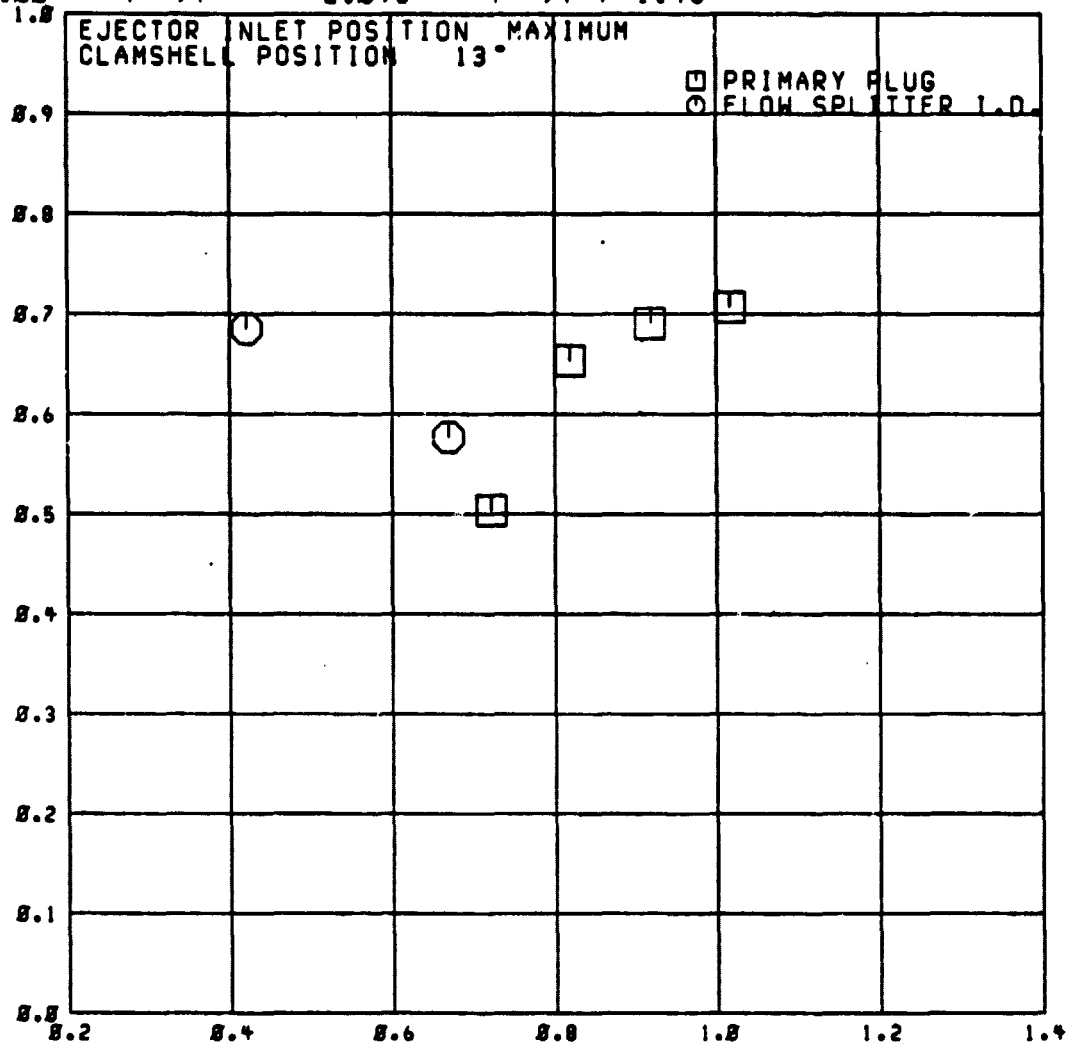
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = -.88$

$P_{tr}/P_0 = 2.895$

$P_{tr}/P_{tp} = 1.43$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

RUN 26

C3

ROG=1579

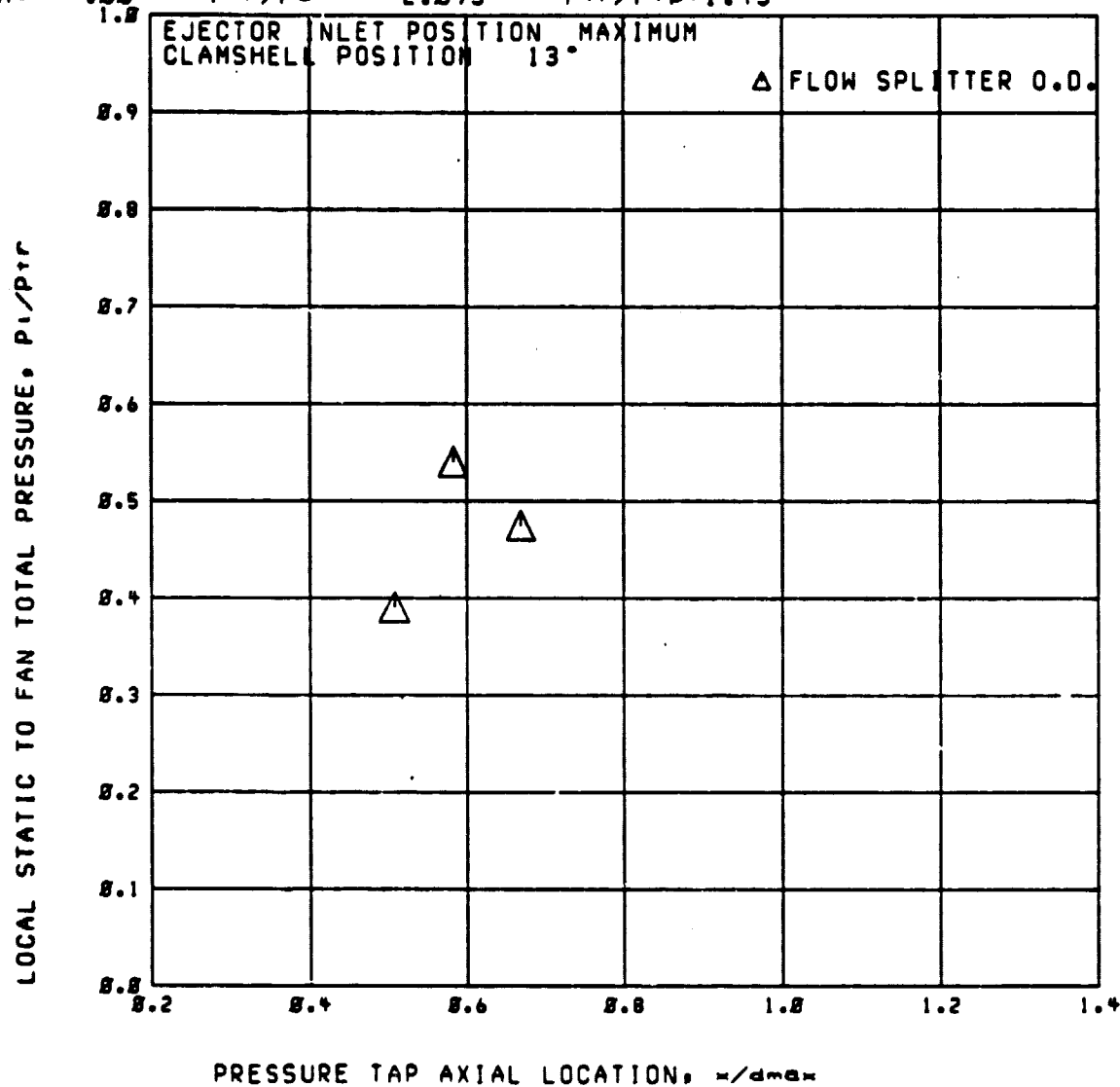
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = -.88$

$P_{1r}/P_0 =$

2.895

$P_{1r}/P_{1s} = 1.43$



ORIGINAL PAGE IS  
OF POOR QUALITY

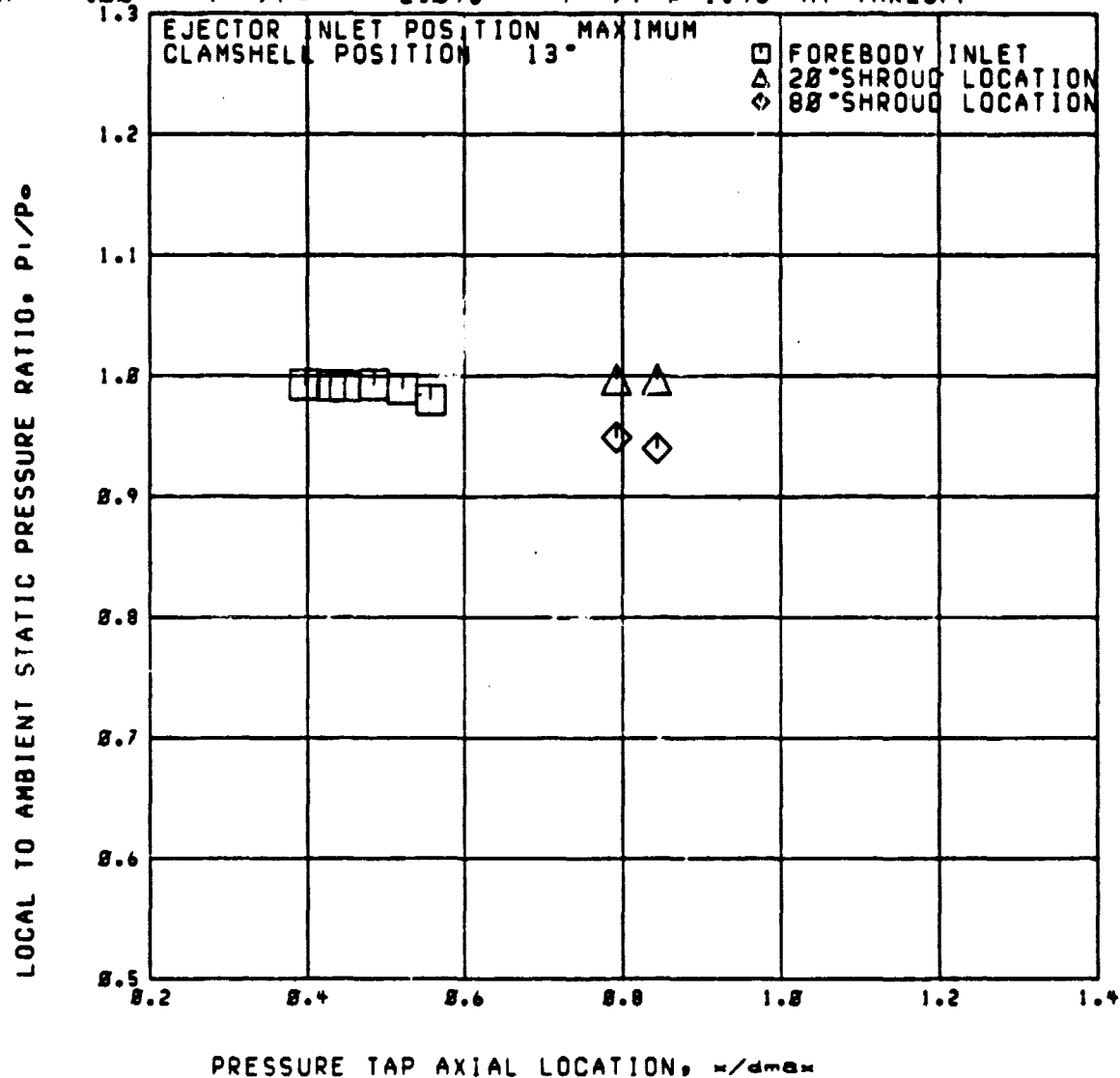
Run 26

RDG=1579

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = -.88$   $P_{ir}/P_o = 2.895$   $P_{ir}/P_{iw} = 1.43$  AT TAKEOFF



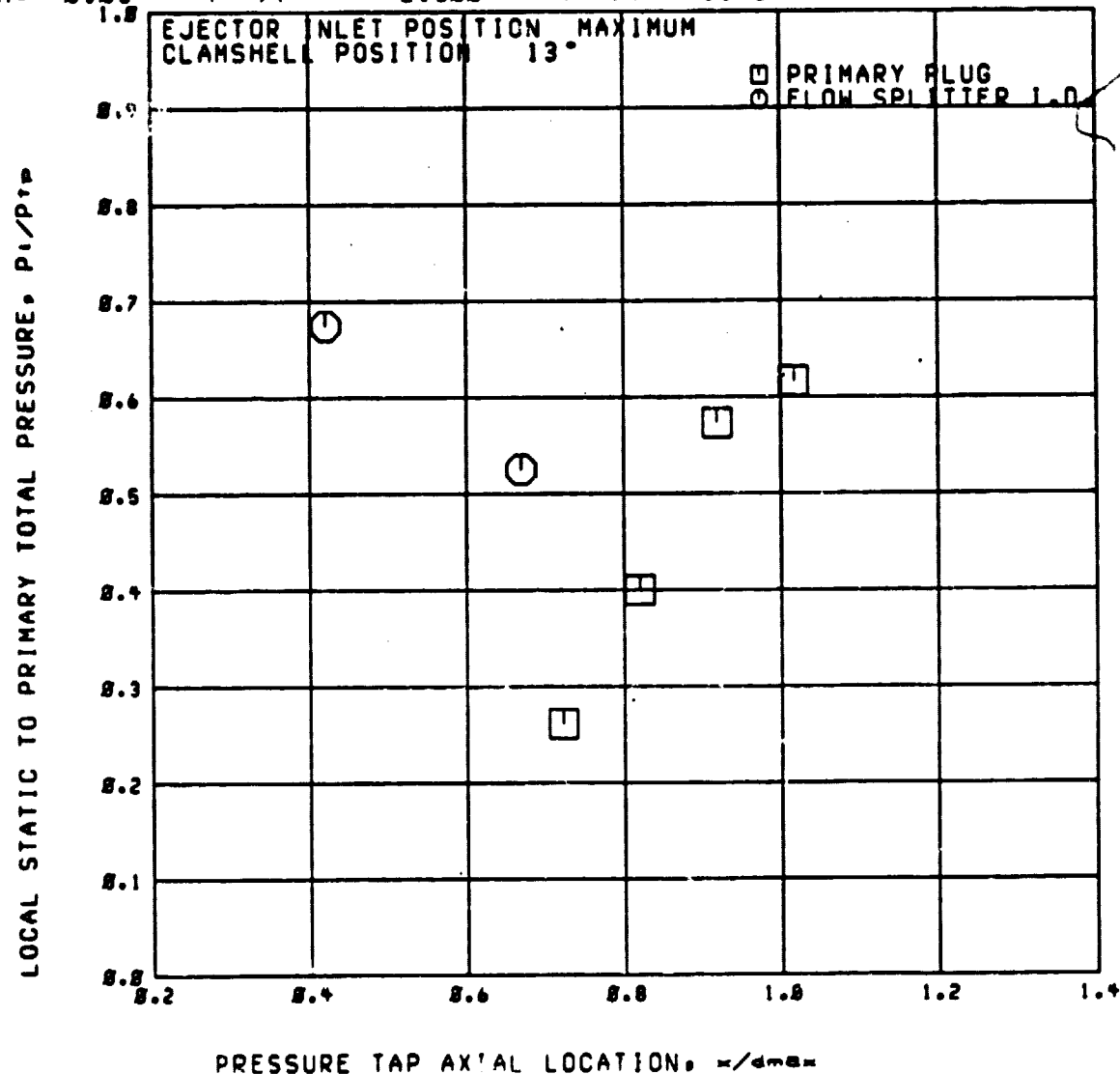
RUN 26

C3

RDG=1588

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.83$   $P_{tr}/P_{\infty} = 2.588$   $P_{tr}/P_{tr} = 1.45$





Run 26

RDG=1588

C3

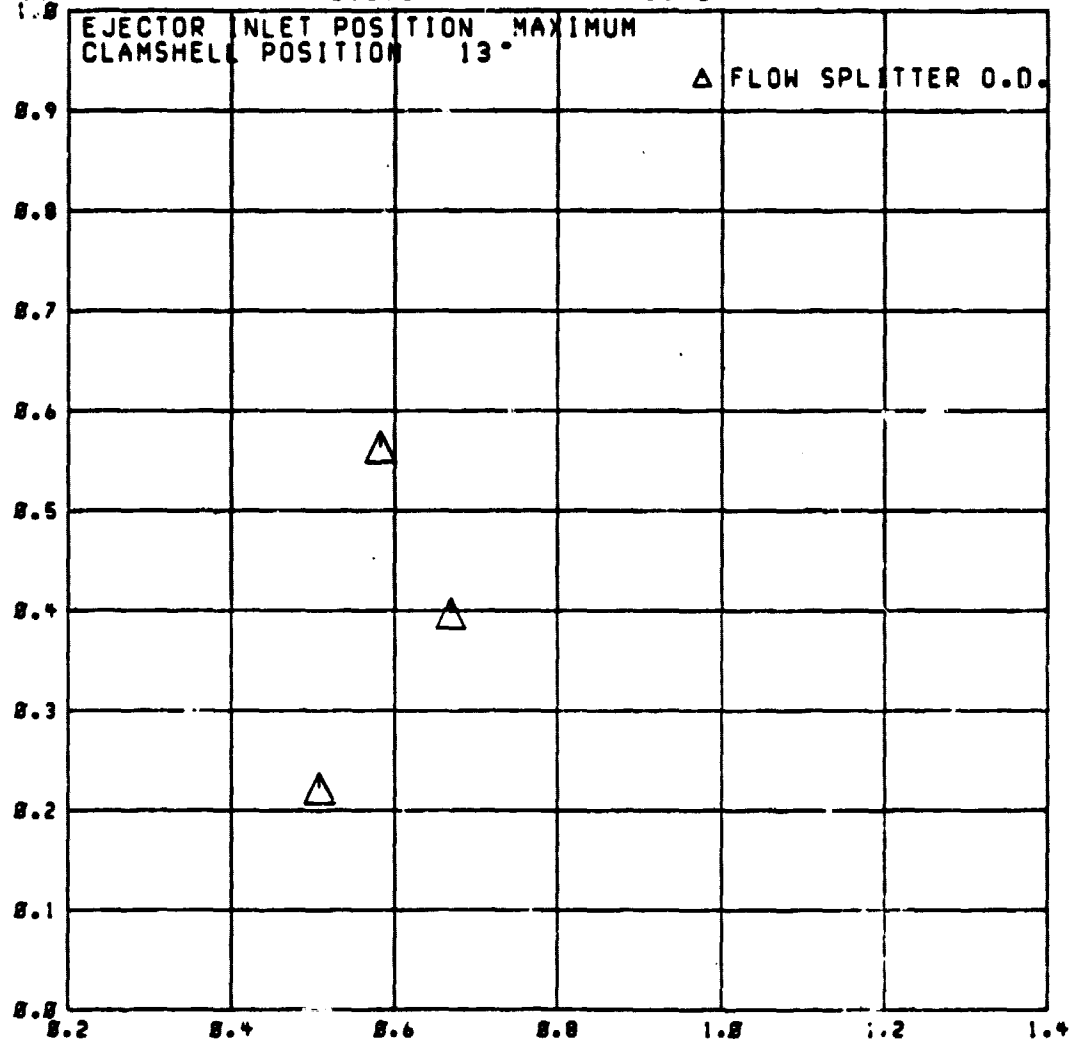
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.83$

$P_{tr}/P_{\infty} = 2.588$

$P_{tr}/P_{tr} = 1.45$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

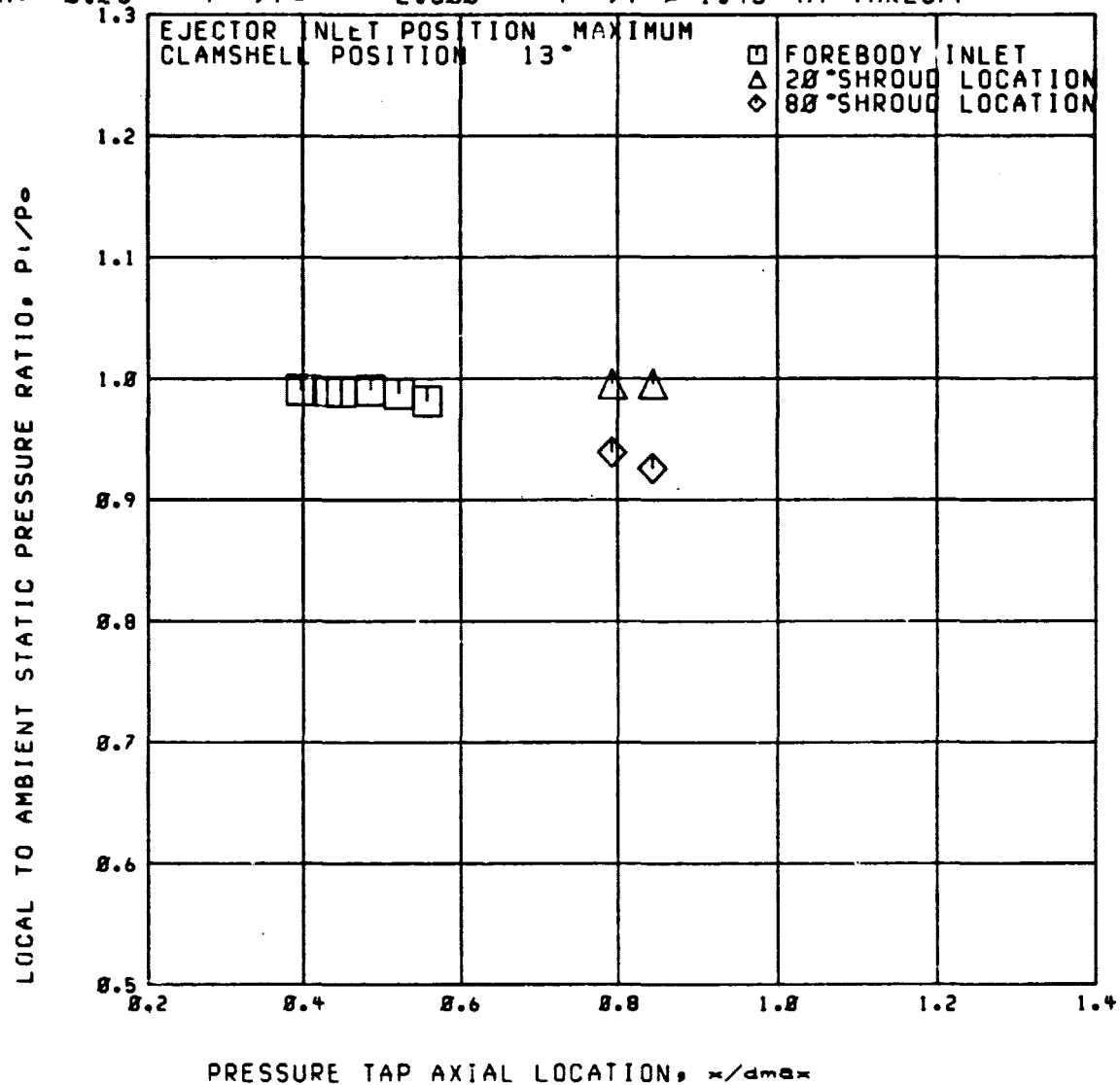
Run 26

C3

RDG=1580

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.83$   $P_{t0}/P_0 = 2.500$   $P_{t0}/P_{t0} = 1.45$  AT TAKEOFF



Run 26

RDG=1581

C3

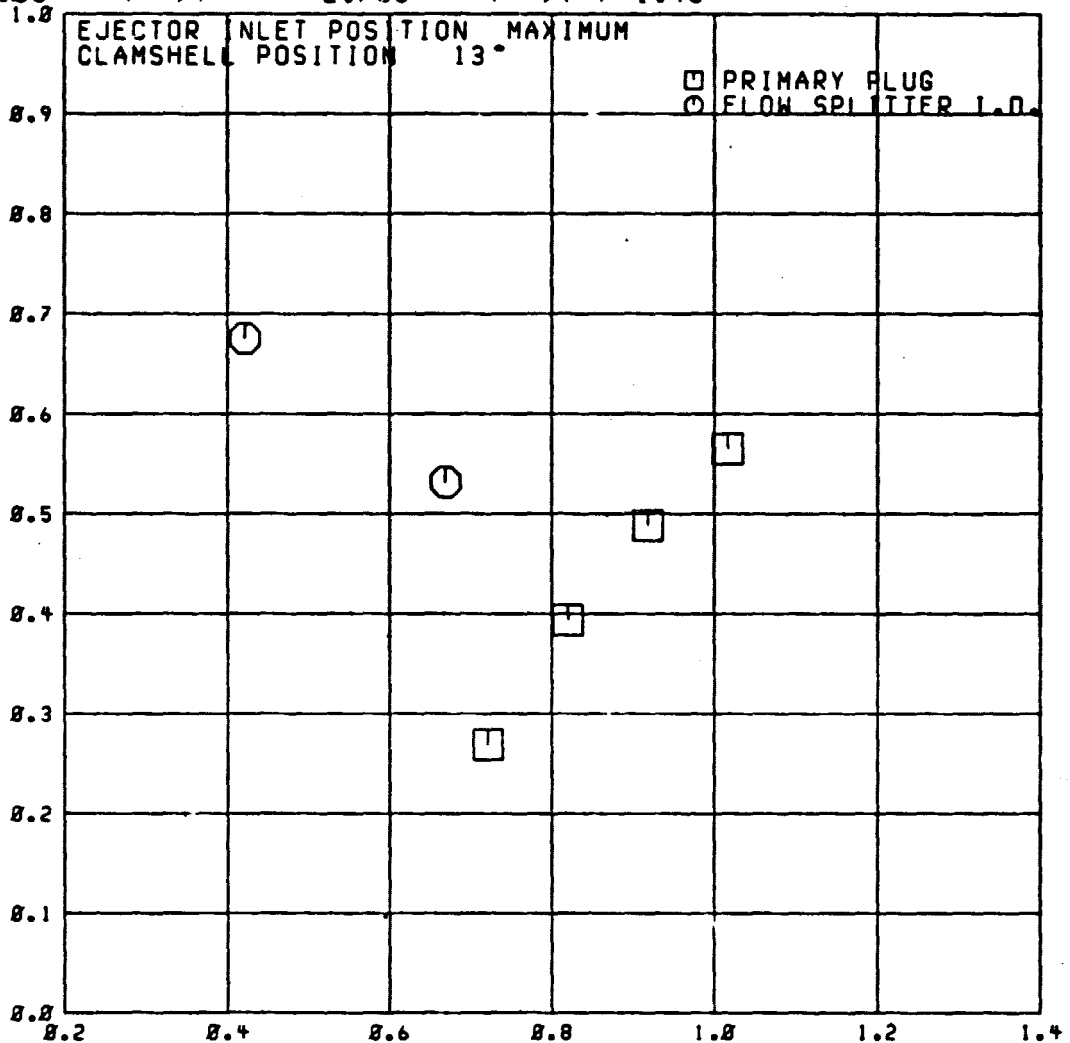
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$

$P_{1r}/P_0 = 2.766$

$P_{1r}/P_{1p} = 1.46$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_1/P_{1p}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

CHART 1 OF 10  
OF PLUG AND SPLITTER

RUN 26

RDG=1581

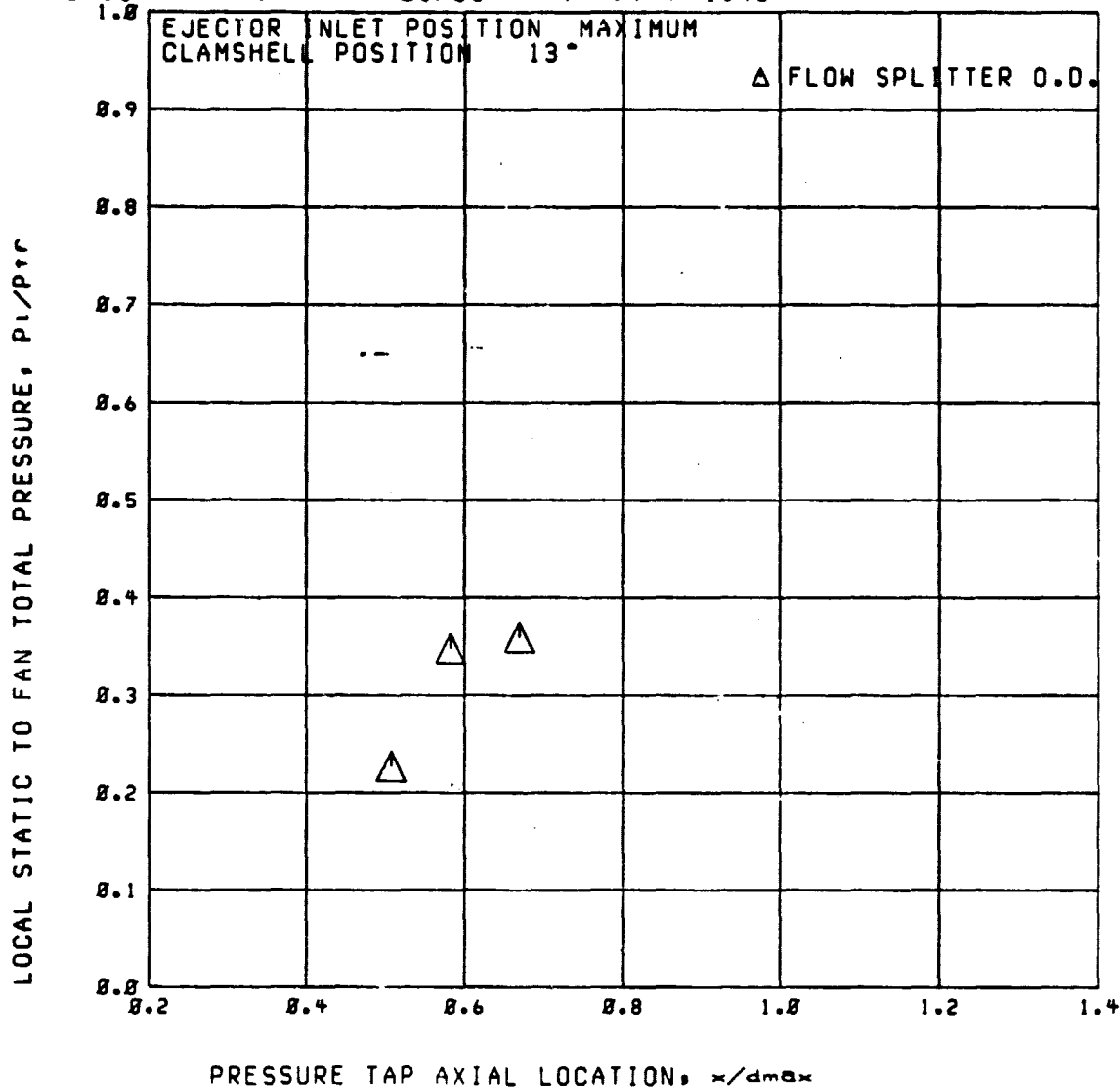
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$

$P_{tr}/P_0 = 2.766$

$P_{tr}/P_{tr} = 1.46$



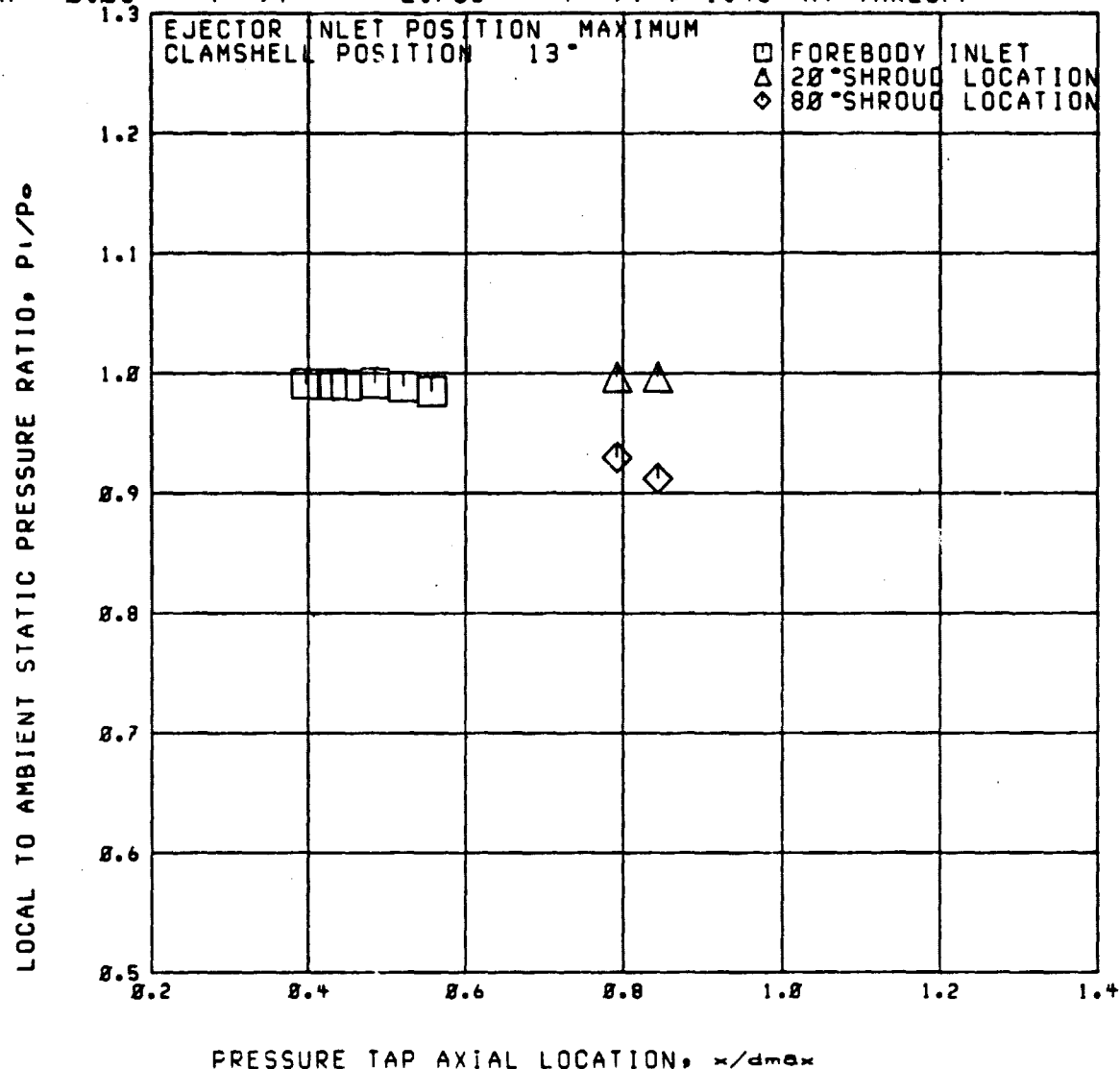
RUN 26

C3

RDG=1581

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.05$   $P_{tr}/P_o = 2.766$   $P_{tr}/P_{tr} = 1.46$  AT TAKEOFF



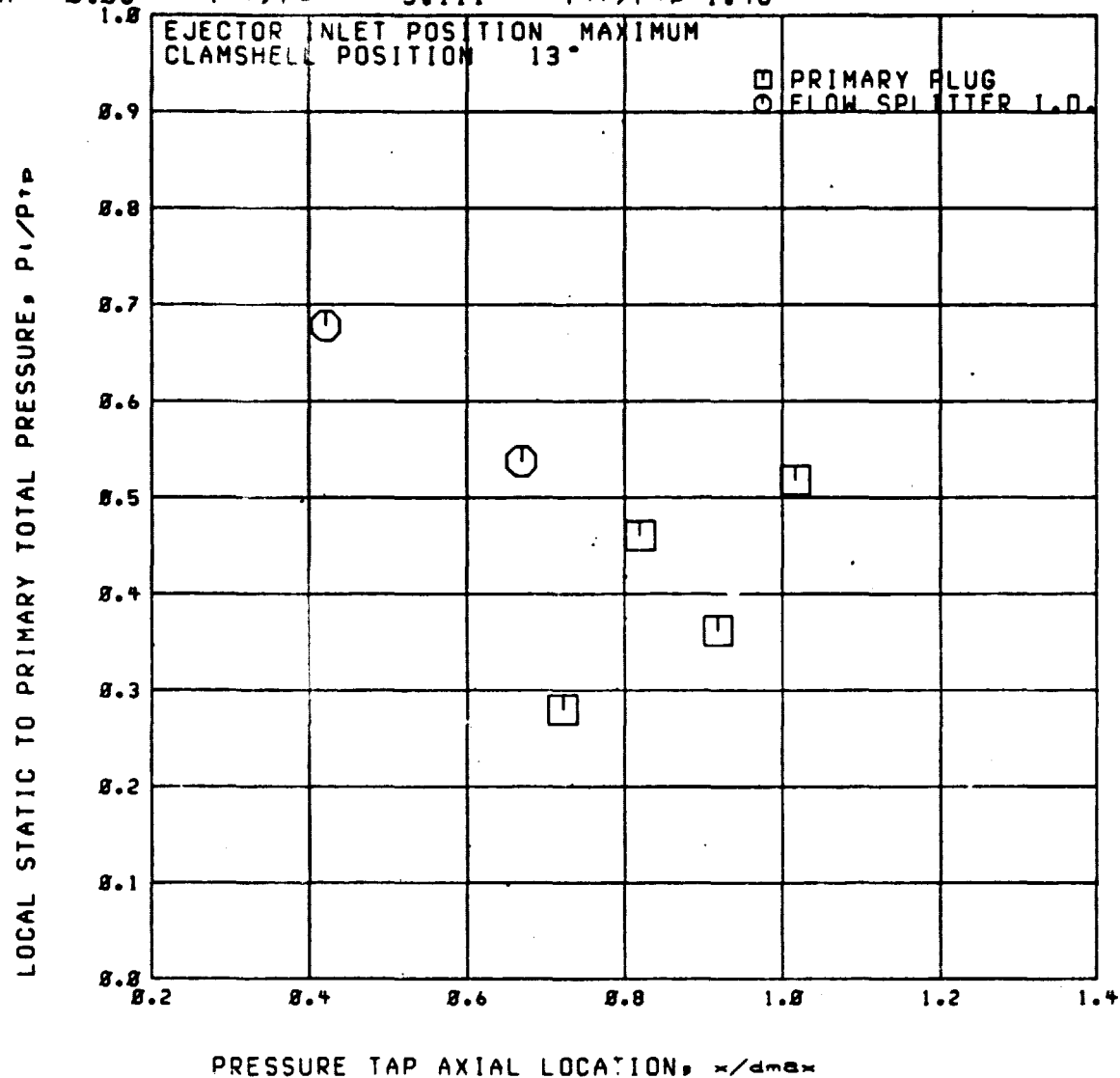
RUN 26

RDG=1582

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.85$   $P_{tr}/P_0 = 3.111$   $P_{tr}/P_{tr} = 1.48$



RUN 26

RDG=1582

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

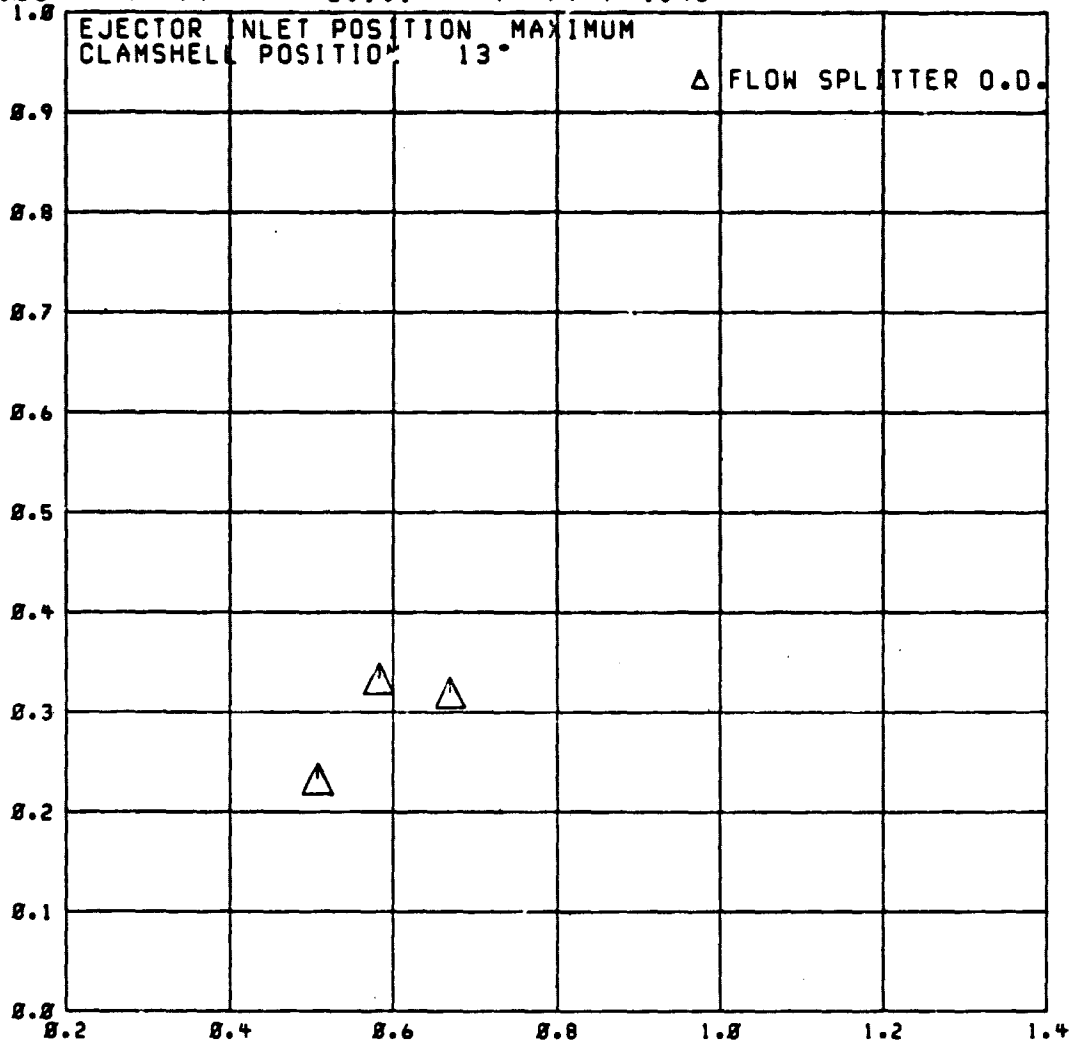
$M_0 = 0.05$

$P_{tr}/P_0 =$

3.111

$P_{tr}/P_{tp} = 1.48$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_t/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

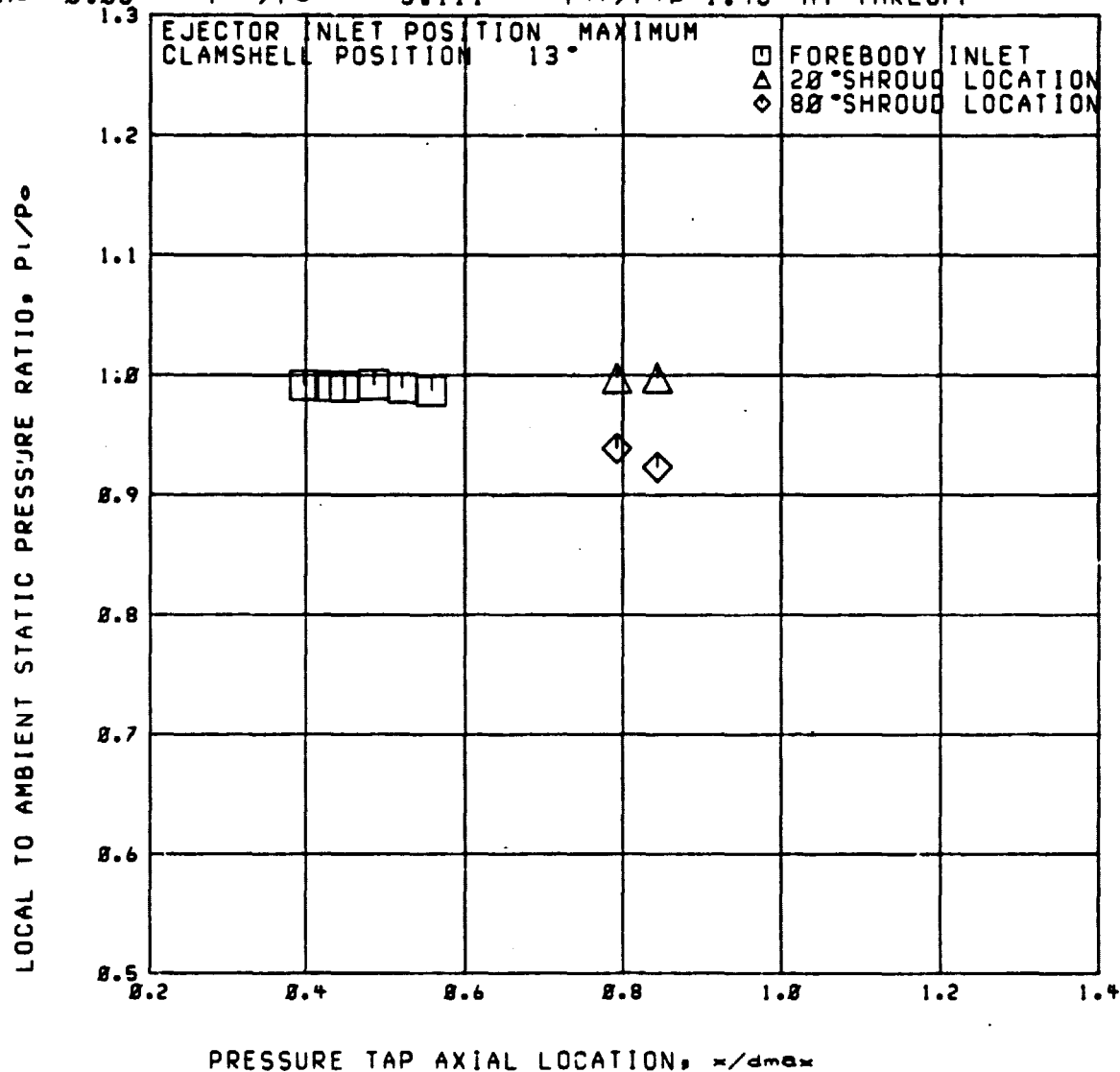
RUN 26

C3

ROG=1582

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.05$   $P_{10}/P_o = 3.111$   $P_{10}/P_{10} = 1.48$  AT TAKEOFF



ORIGINAL PAGE 11  
OF 17



Run 26

RDG=1583

C3

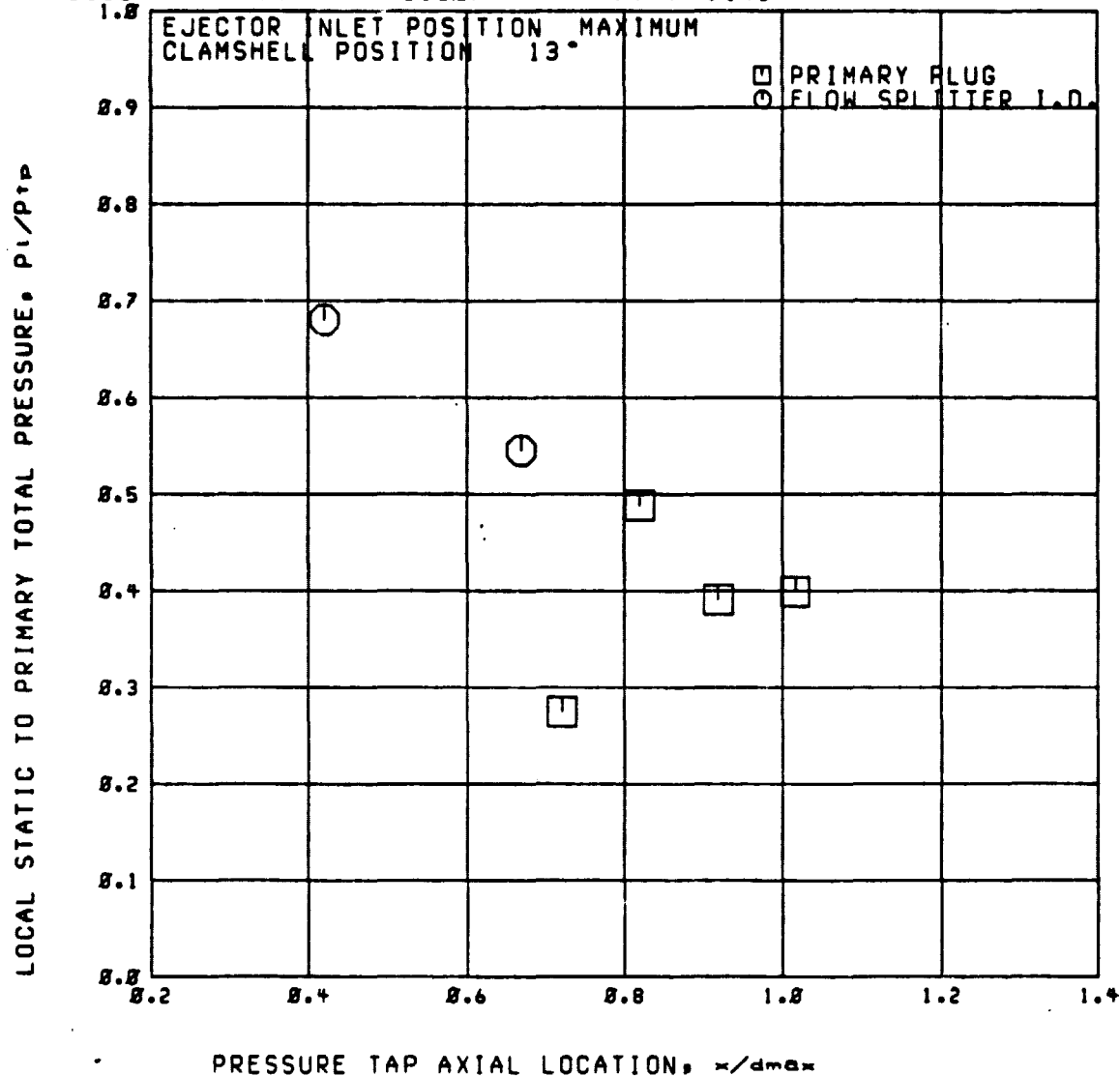
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$

$P_{tr}/P_0 =$

3.687

$P_{tr}/P_{tp} = 1.46$



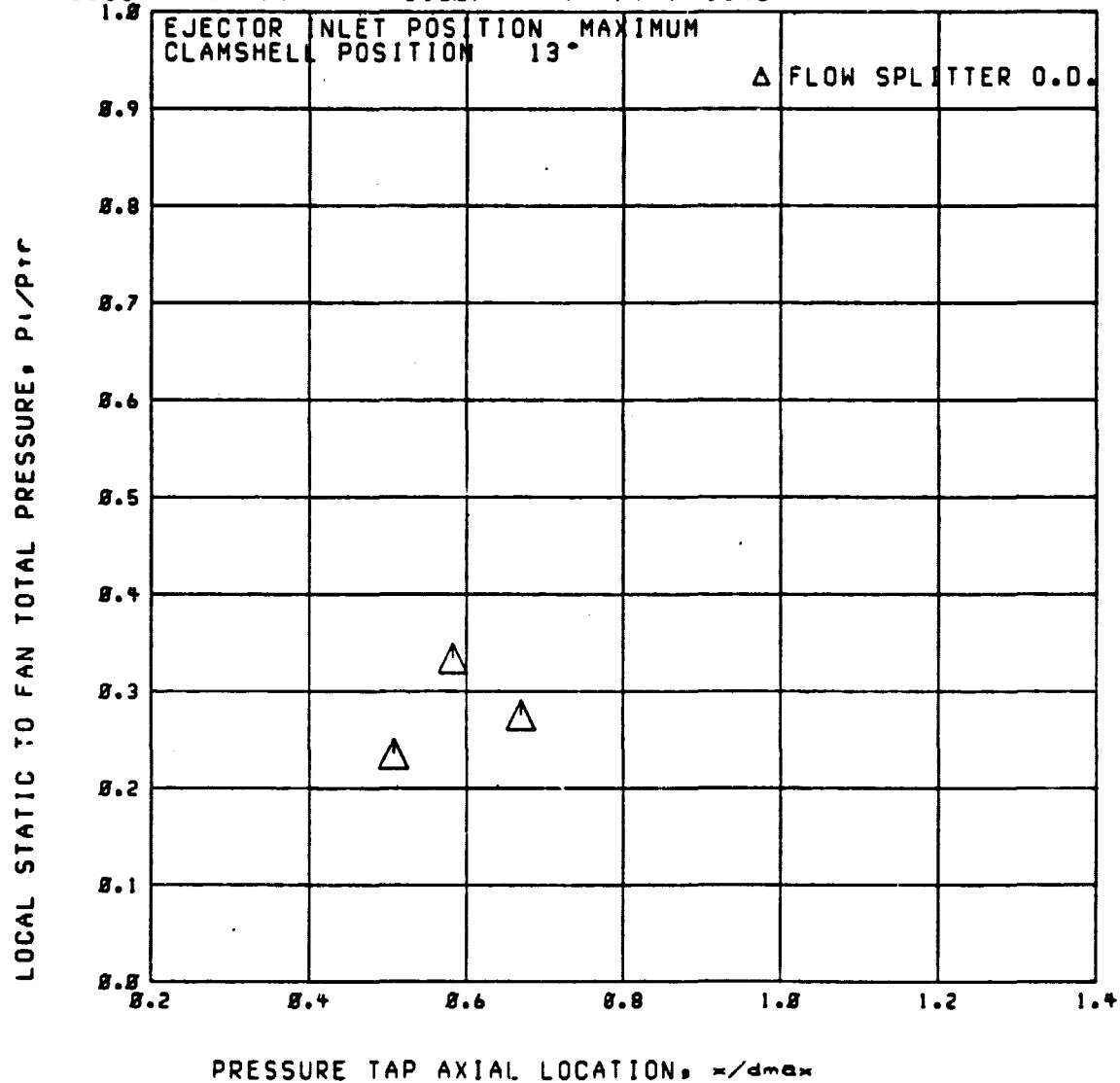
RUN 26

RDG=1583

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

Mo = 0.05      P<sub>tr</sub>/P<sub>os</sub> = 3.687      P<sub>tr</sub>/P<sub>tp</sub> = 1.46



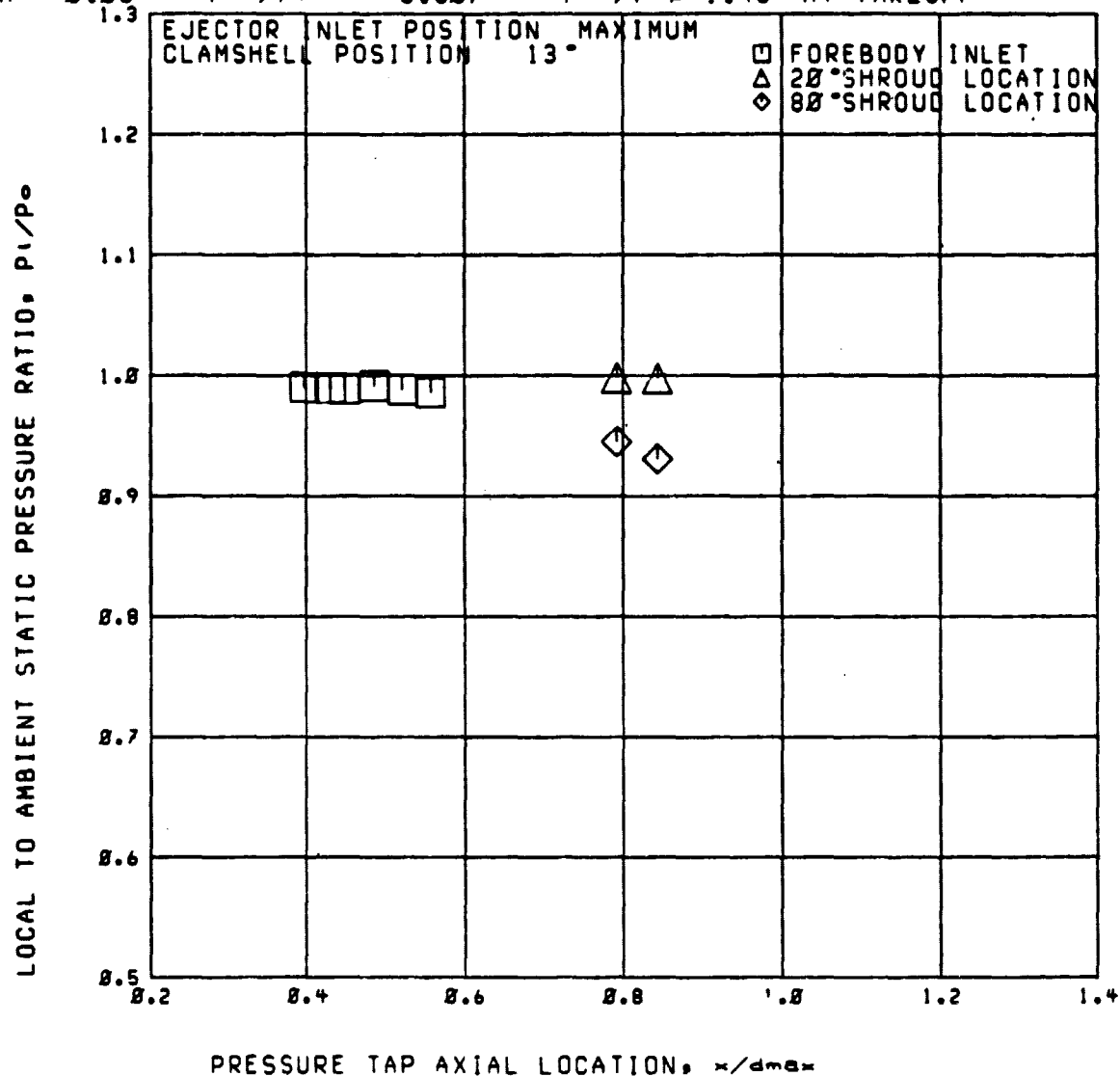
RUN 26

C3

RDG=1583

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.85$   $P_{ir}/P_0 = 3.607$   $P_{ir}/P_{ip} = 1.46$  AT TAKEOFF



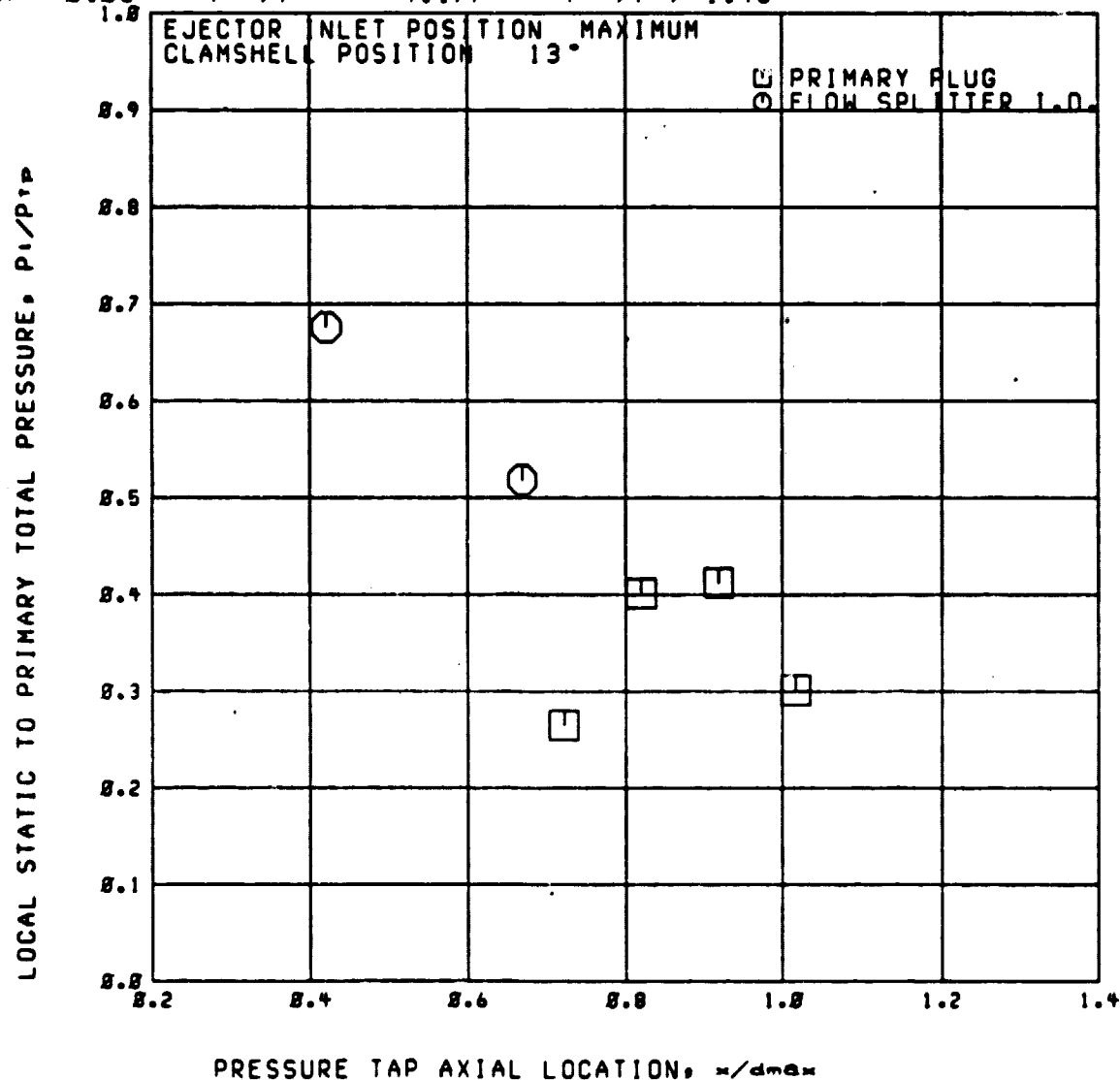
Run 26

RDG=1584

03

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.86$   $P_{1c}/P_0 = 4.177$   $P_{1c}/P_{1p} = 1.46$



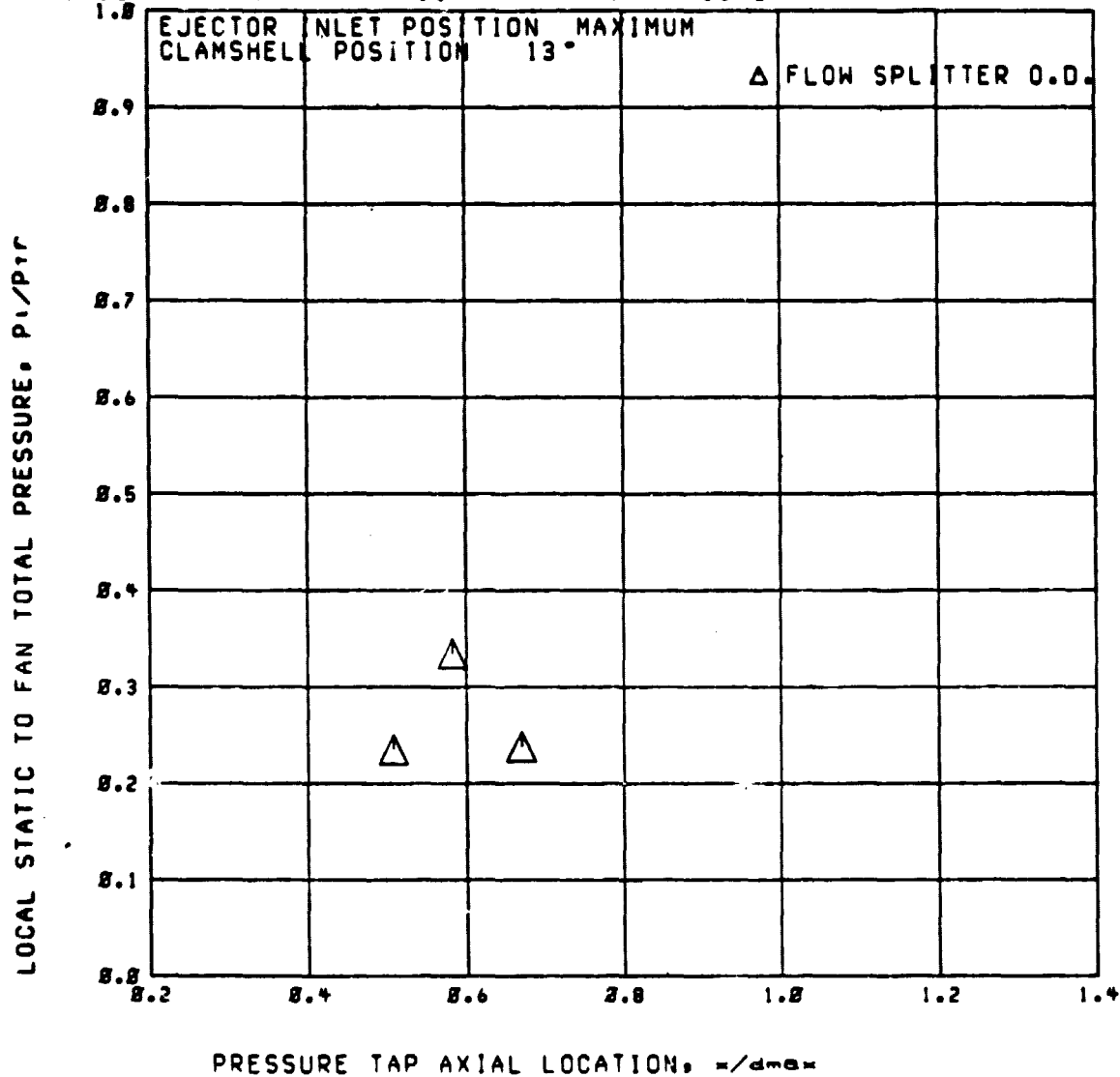
Run 26

RDG=1584

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.86$   $P_{tr}/P_{\infty} = 4.177$   $P_{tr}/P_{tr} = 1.46$



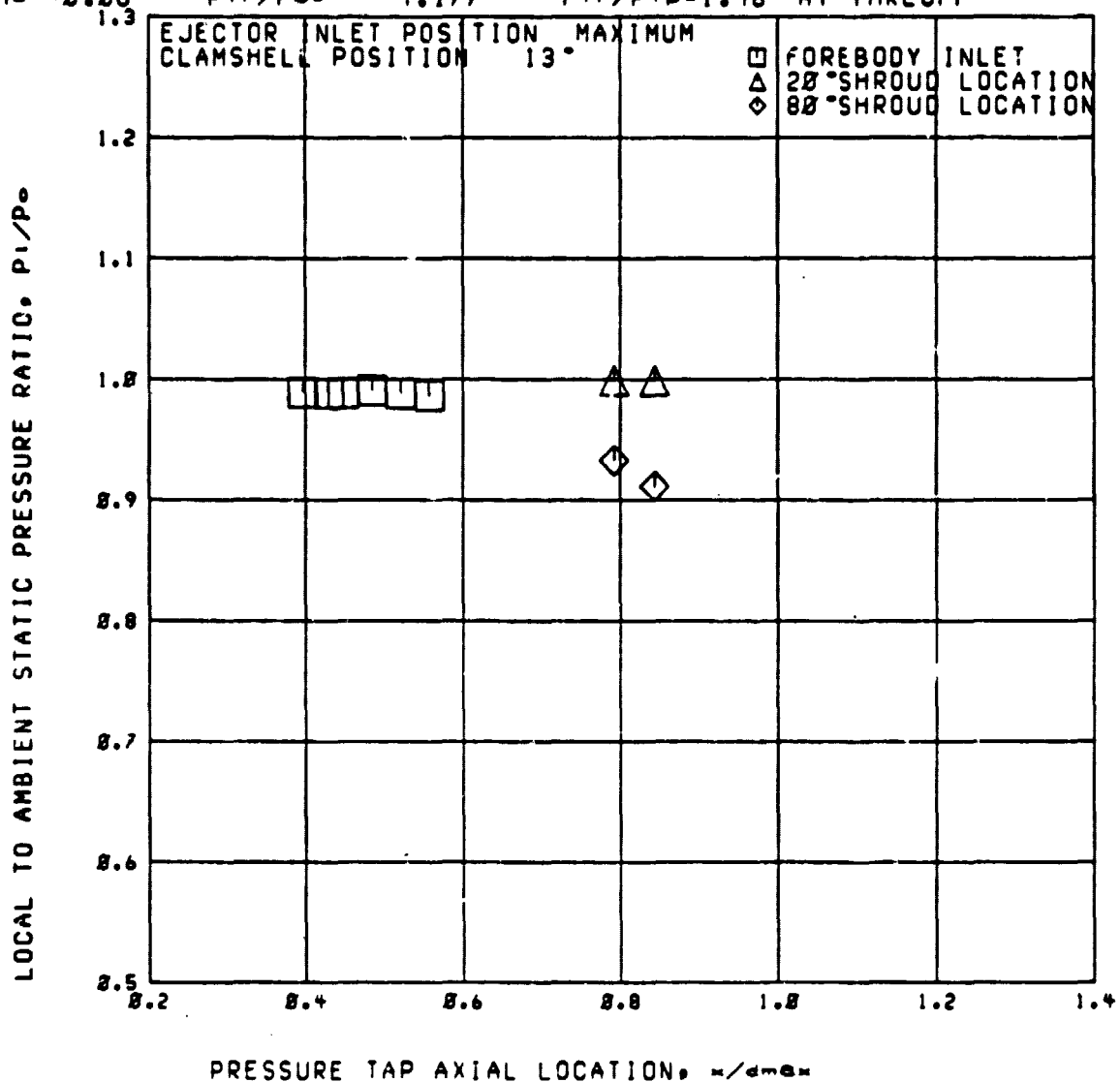
RUN 26

C3

RDG=1584

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M = 0.86$   $P_{t0}/P_{\infty} = 4.177$   $P_{t0}/P_{\infty} = 1.46$  AT TAKEOFF



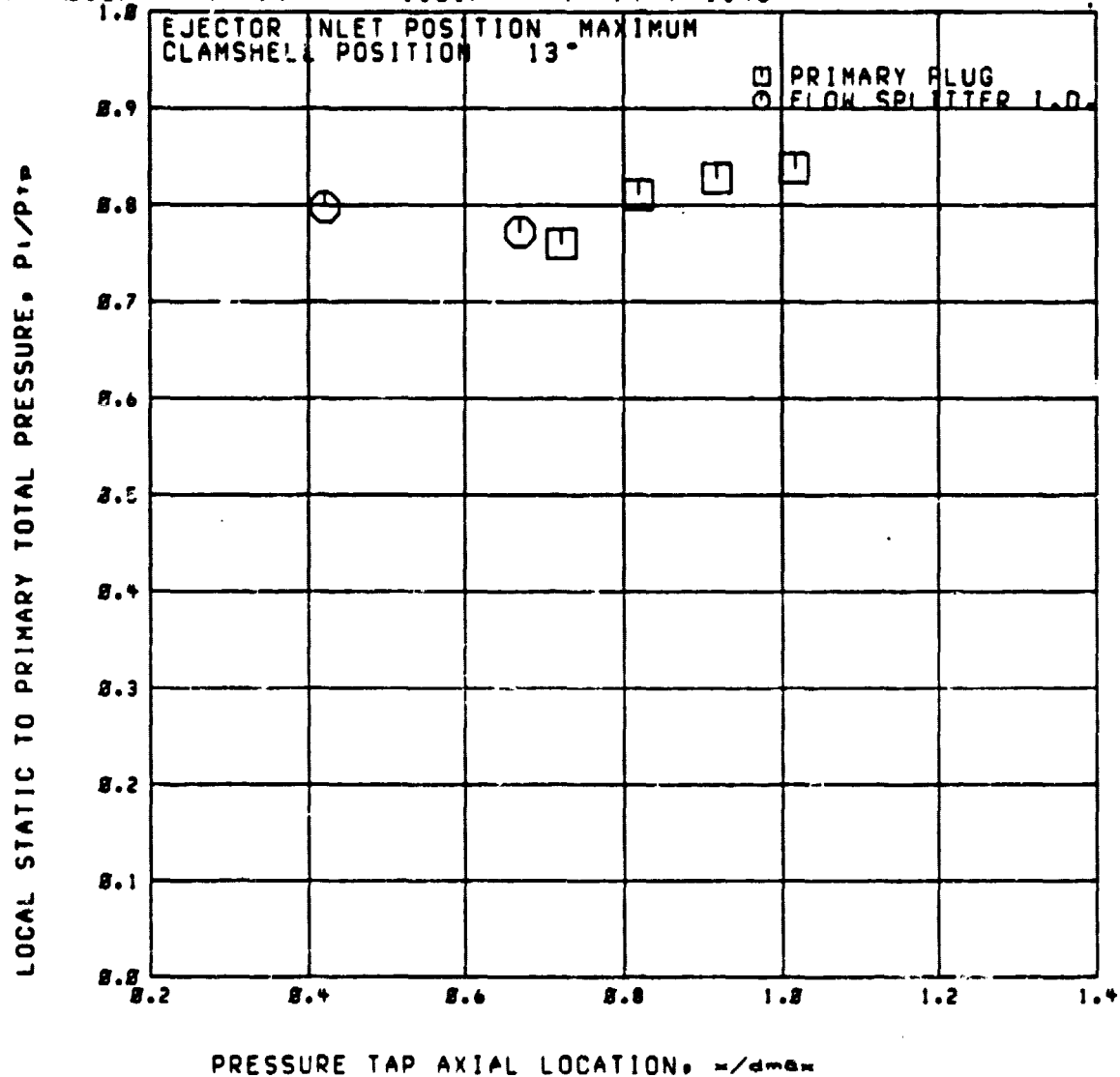
RUN 26

C3

RDG=1546

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.37$      $P_{t,c}/P_{\infty} = 1.817$      $P_{t,c}/P_{t,p} = 1.45$



C3

RUN 26

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

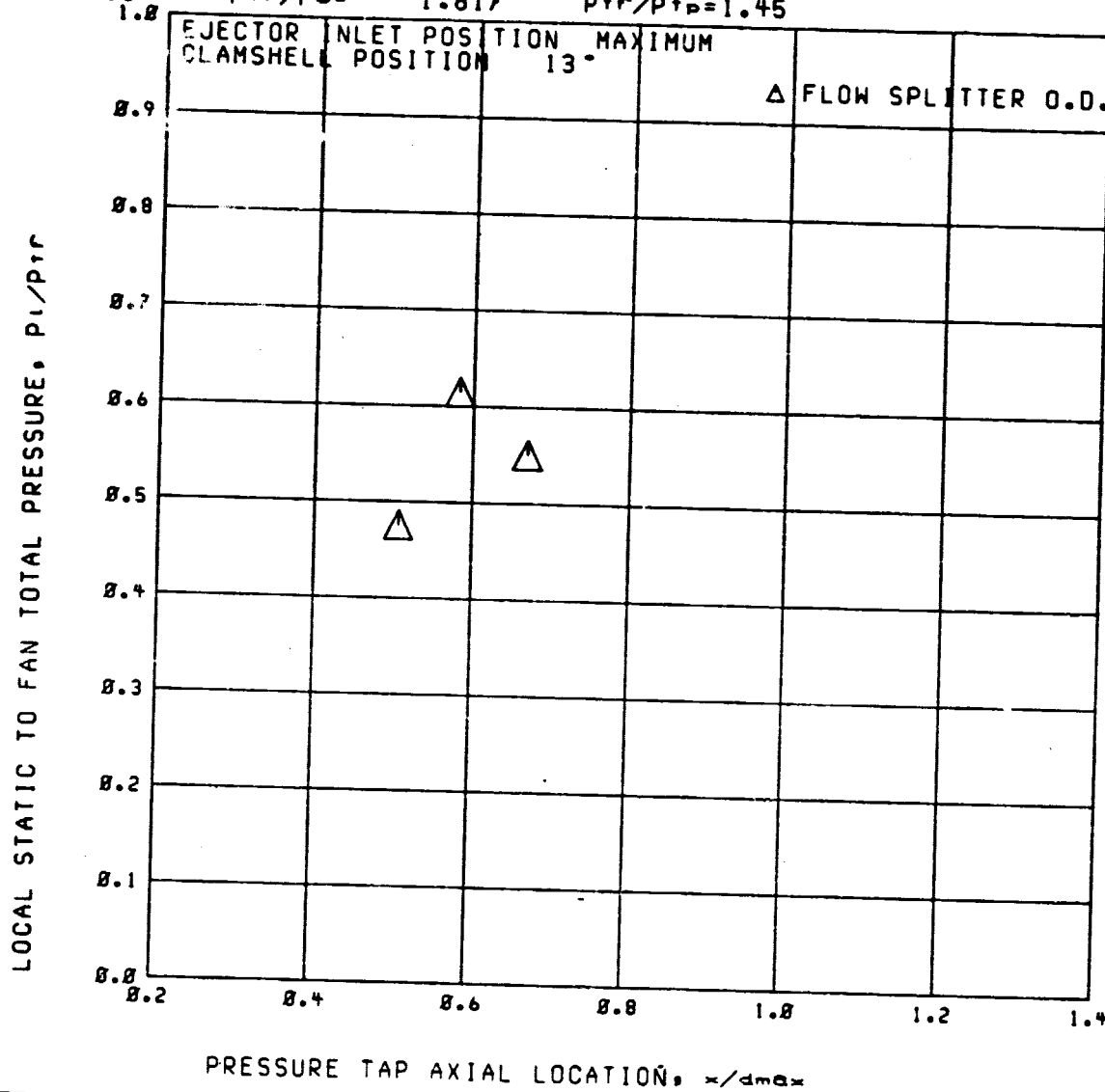
RDG=1546

$M_0 = 0.37$

$P_{tr}/P_0 =$

1.817

$P_{tr}/P_{tr} = 1.45$





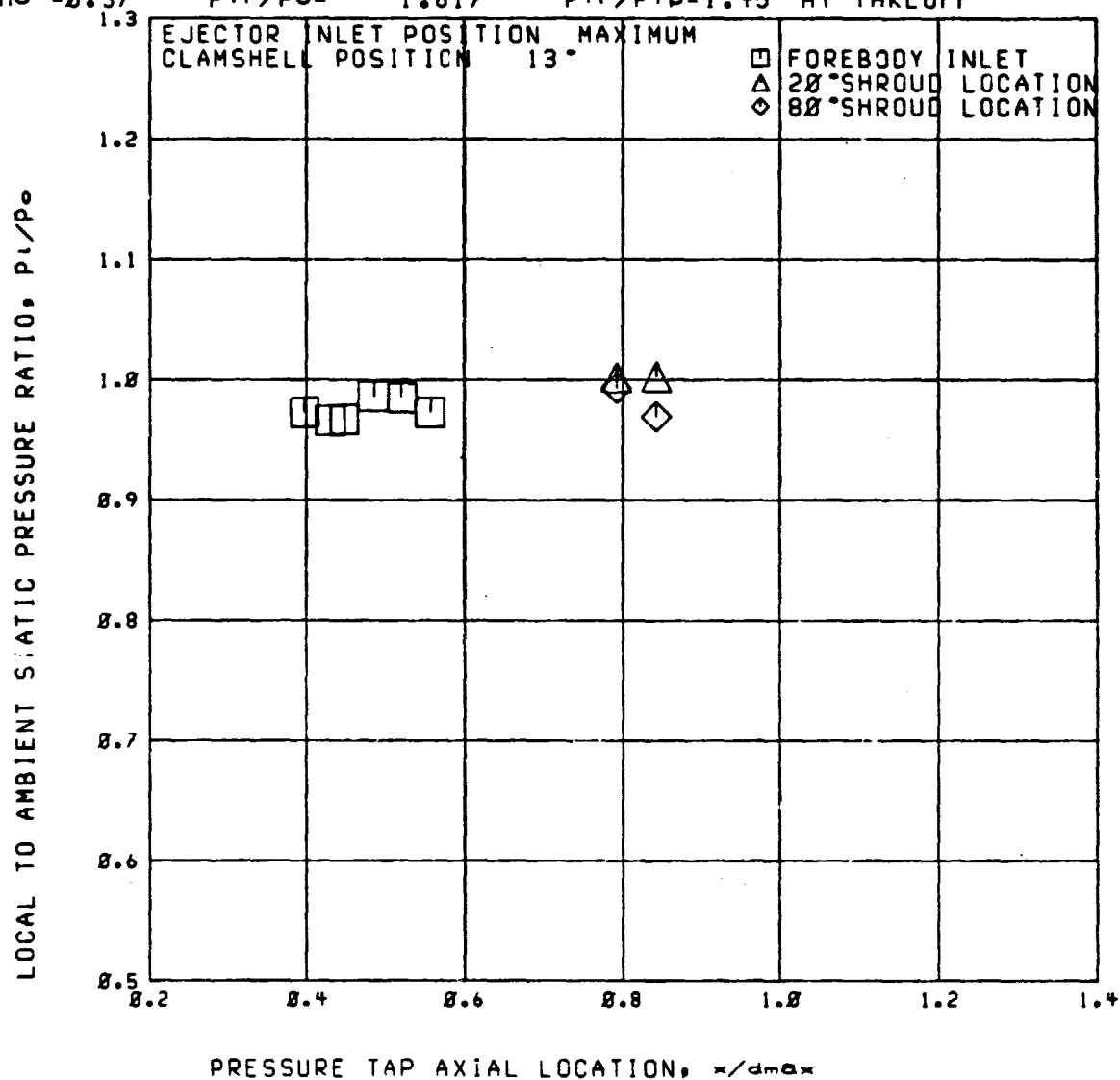
RUN 26

RDG=1546

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.37$   $P_{tr}/P_o = 1.817$   $P_{tr}/P_{tp} = 1.45$  AT TAKEOFF



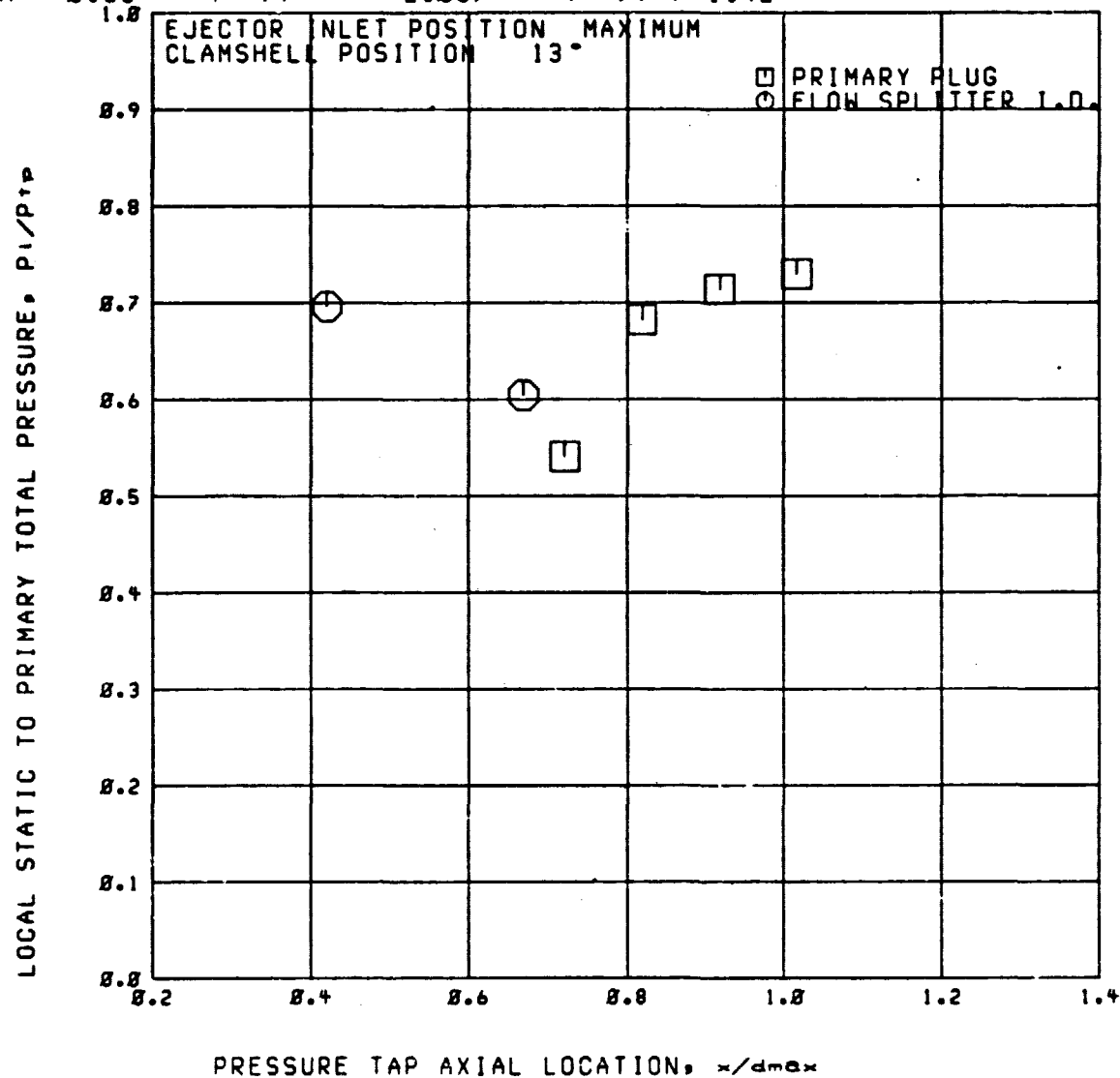
RUN 26

RDG=1547

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 2.087$   $P_{tr}/P_{tp} = 1.42$



Run 26

RDG=1547

C3

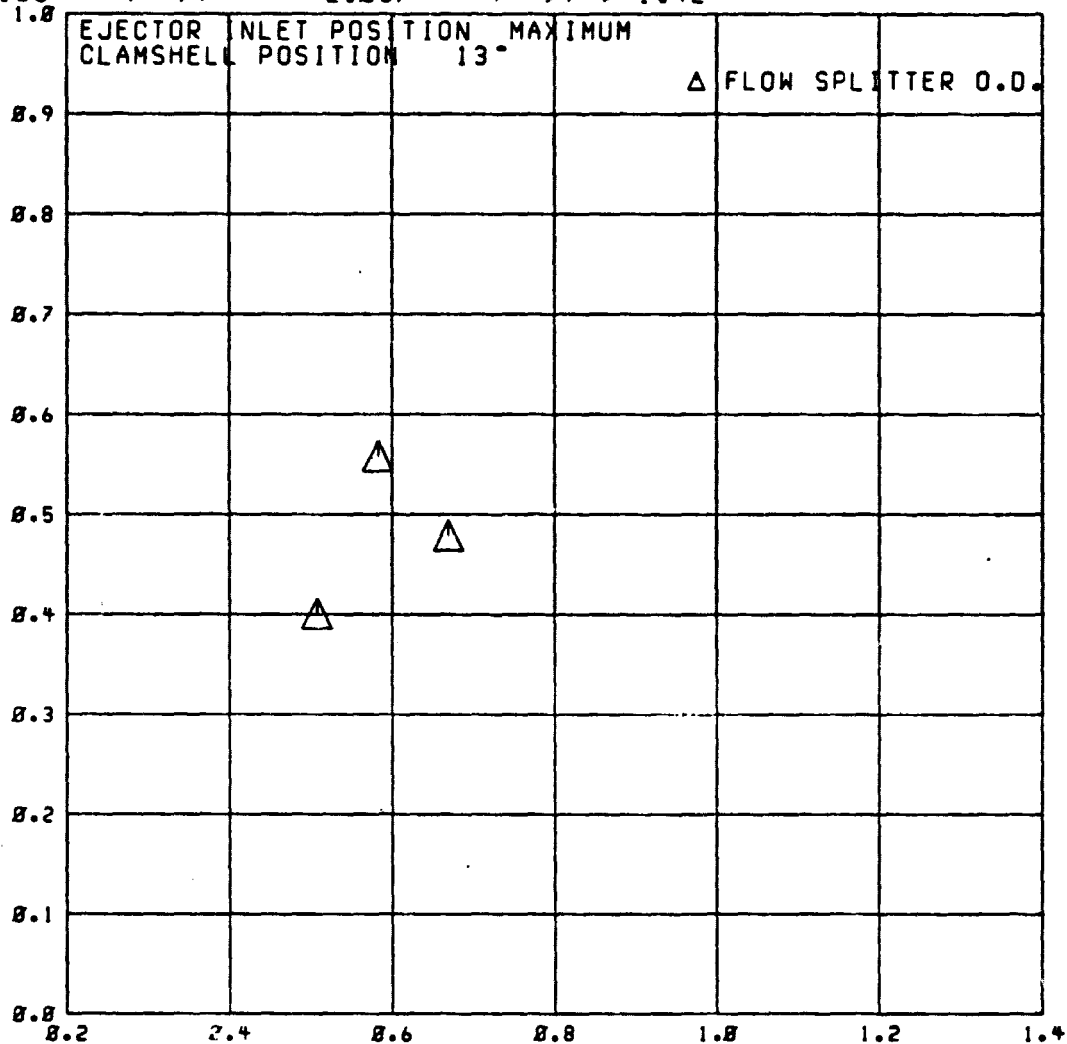
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_{os} = 2.087$

$P_{tr}/P_{tp} = 1.42$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

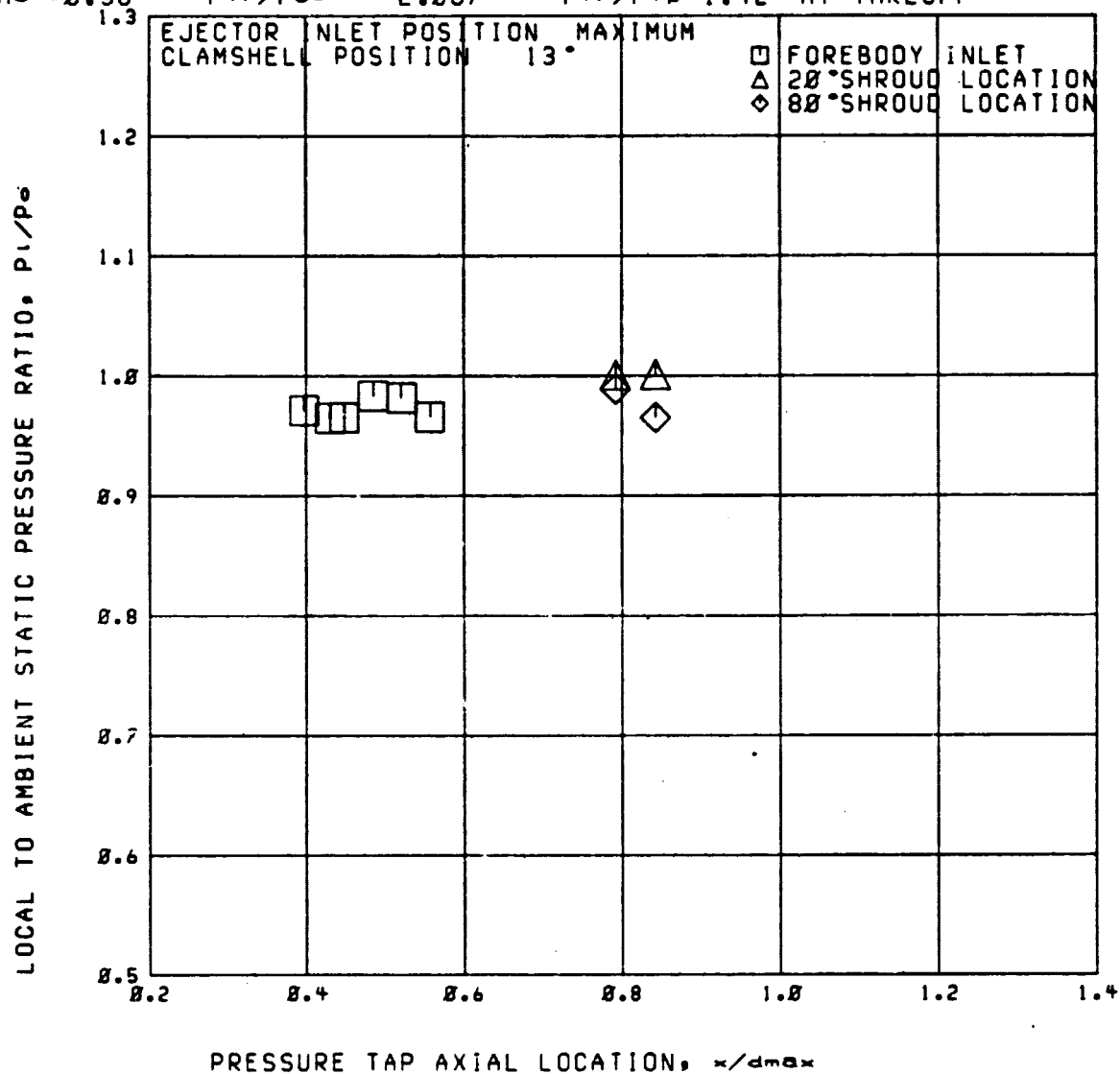
RUN 26

RDG=1547

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$   $P_{tr}/P_0 = 2.087$   $P_{tr}/P_{tr} = 1.42$  AT TAKEOFF



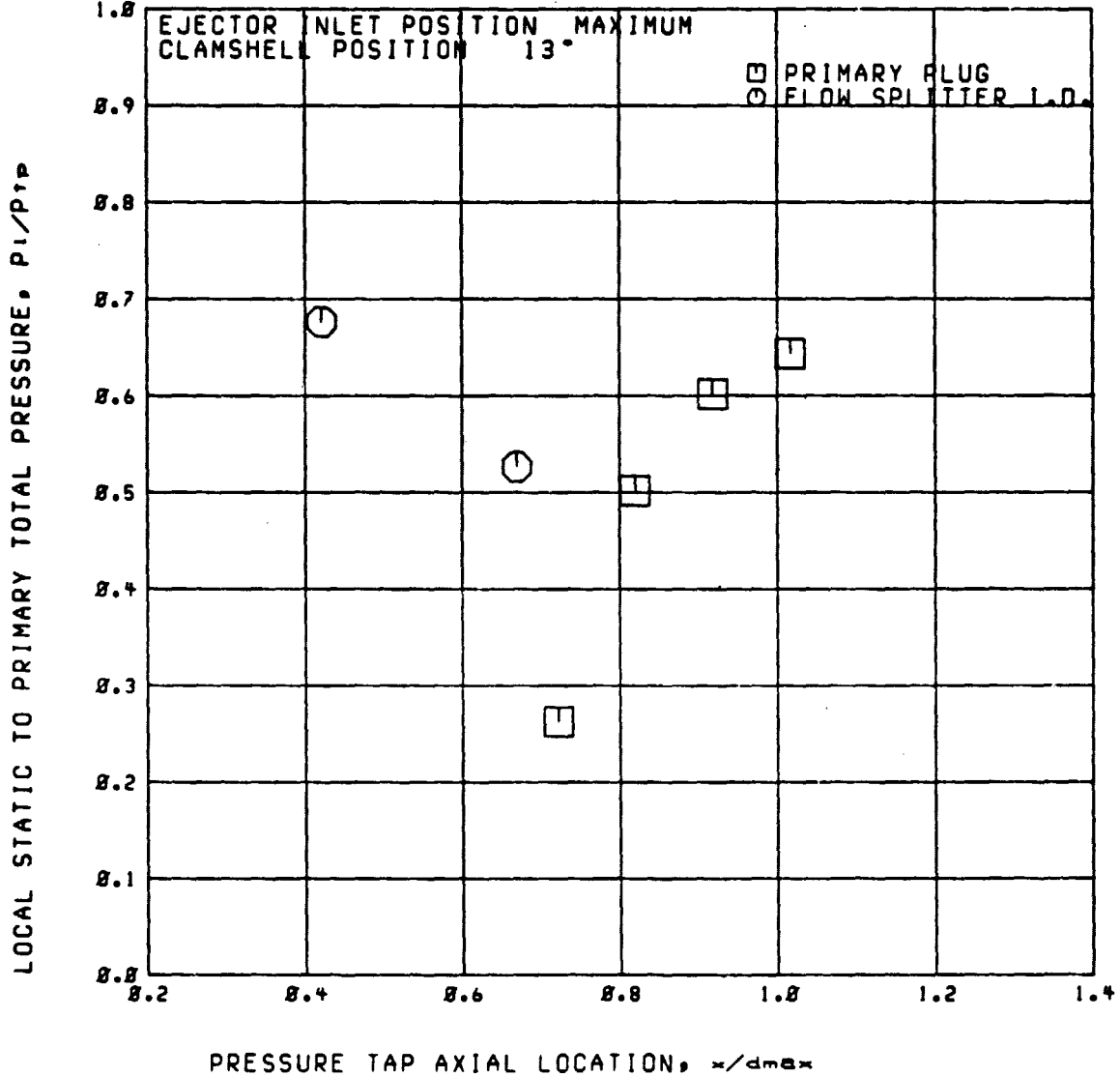
Run 26

RDG=1548

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 2.583$   $P_{tr}/P_{tp} = 1.46$



Run 26

RDG=1548

C3

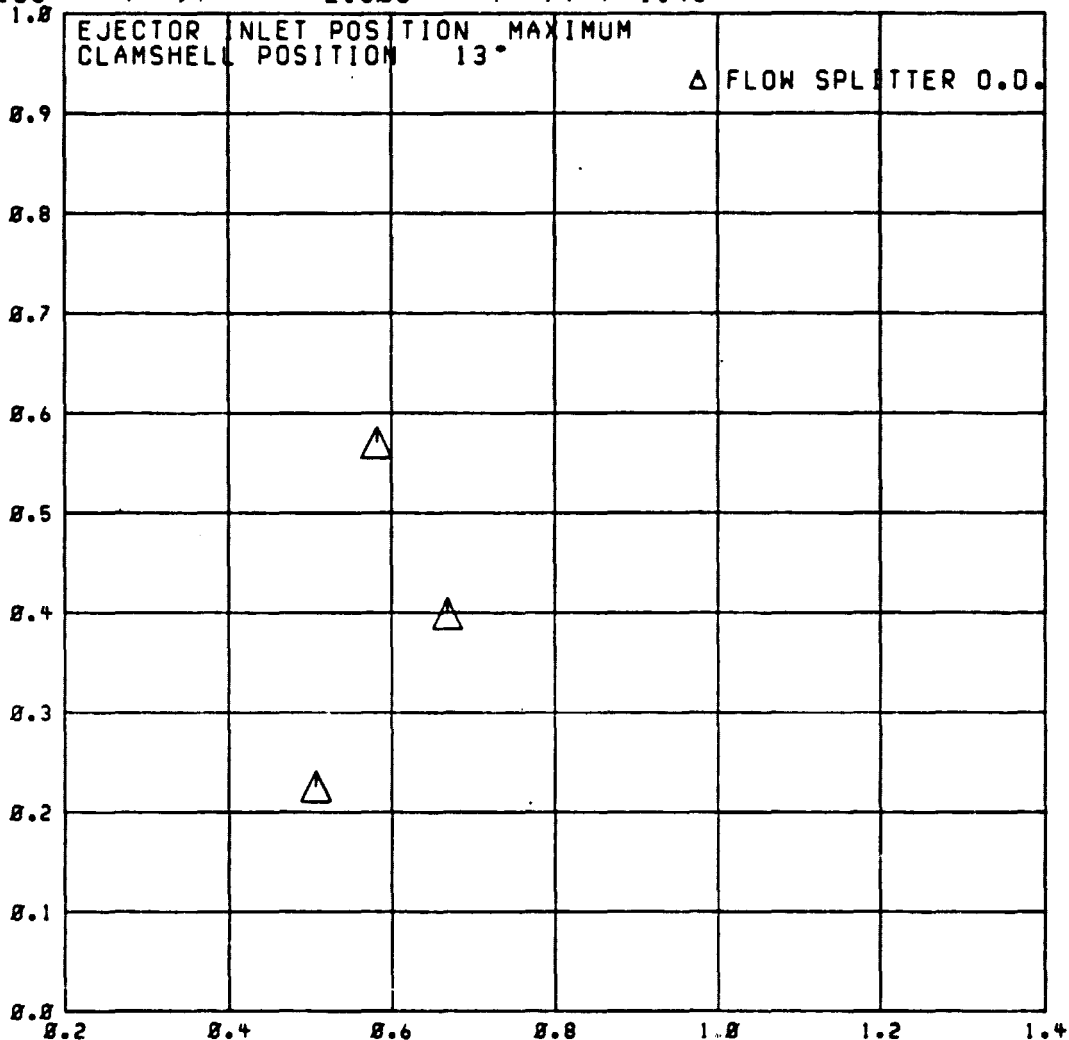
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$

$P_{tr}/P_o = 2.503$

$P_{tr}/P_{tp} = 1.46$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

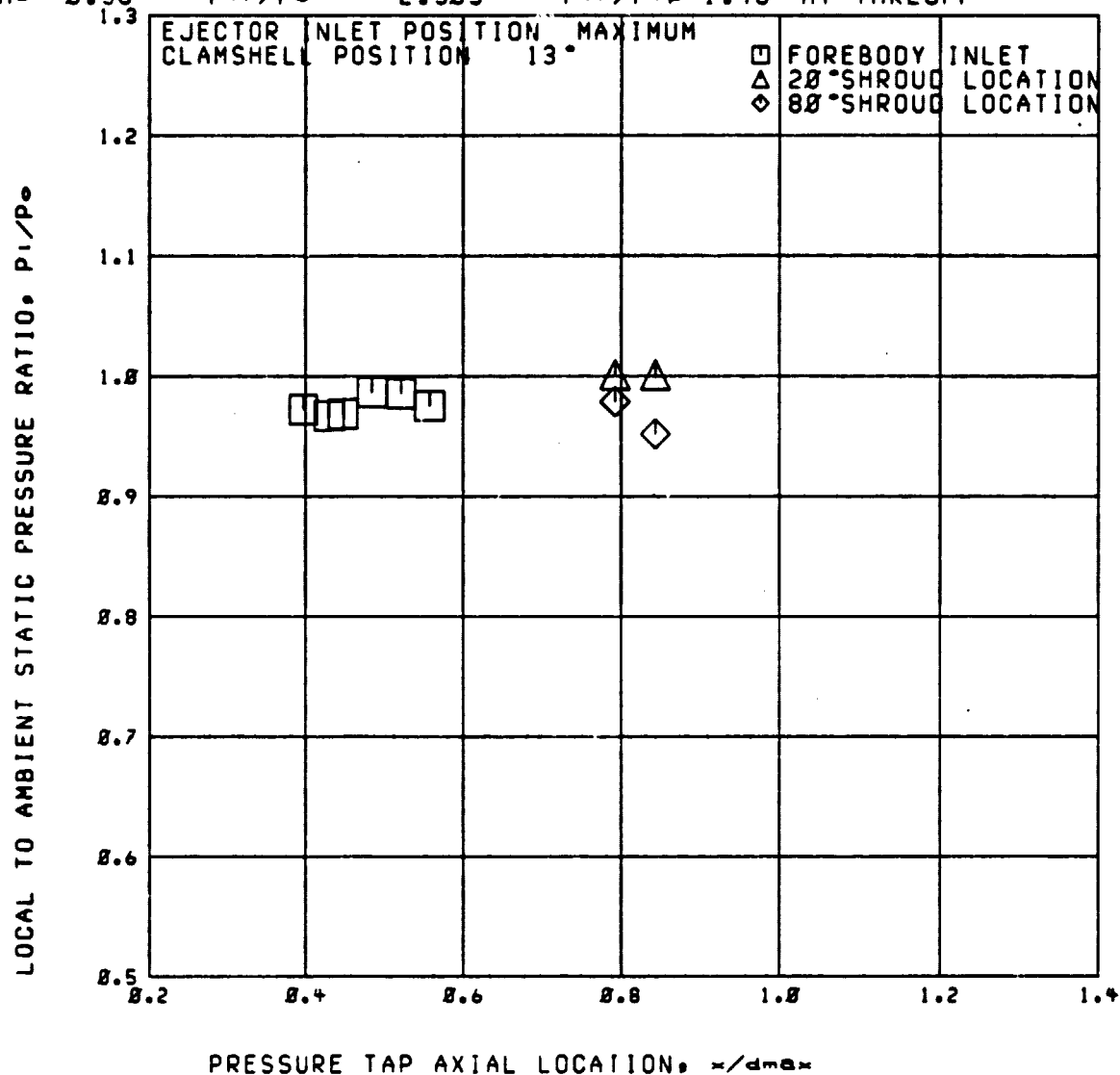
RUN 26

RDG=1548

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 2.503$   $P_{tr}/P_{tr} = 1.46$  AT TAKEOFF



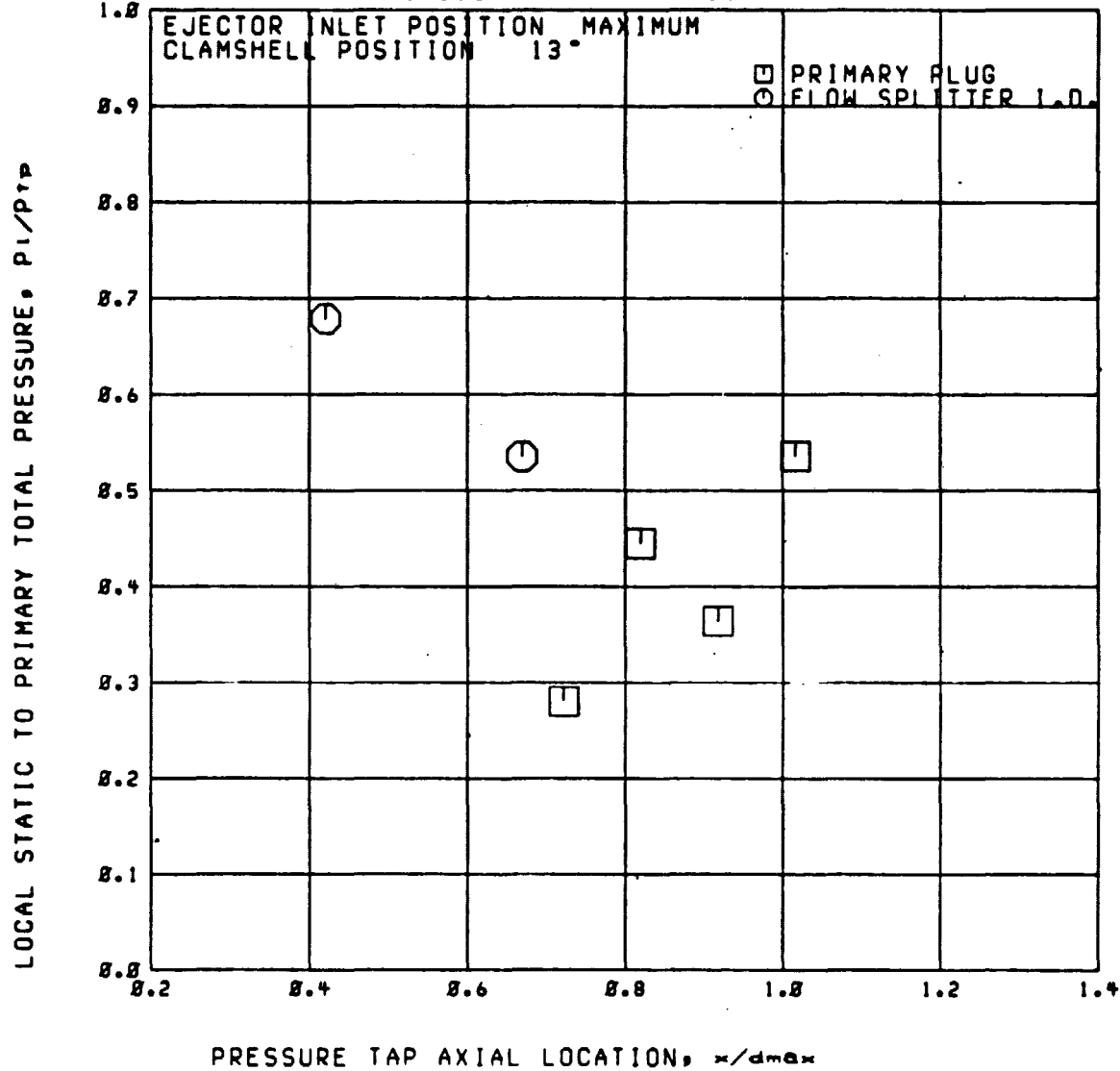
Run 26

RDG=1549

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{ir}/P_0 = 3.116$   $P_{ir}/P_{TP} = 1.47$





Run 26

RDG=1549

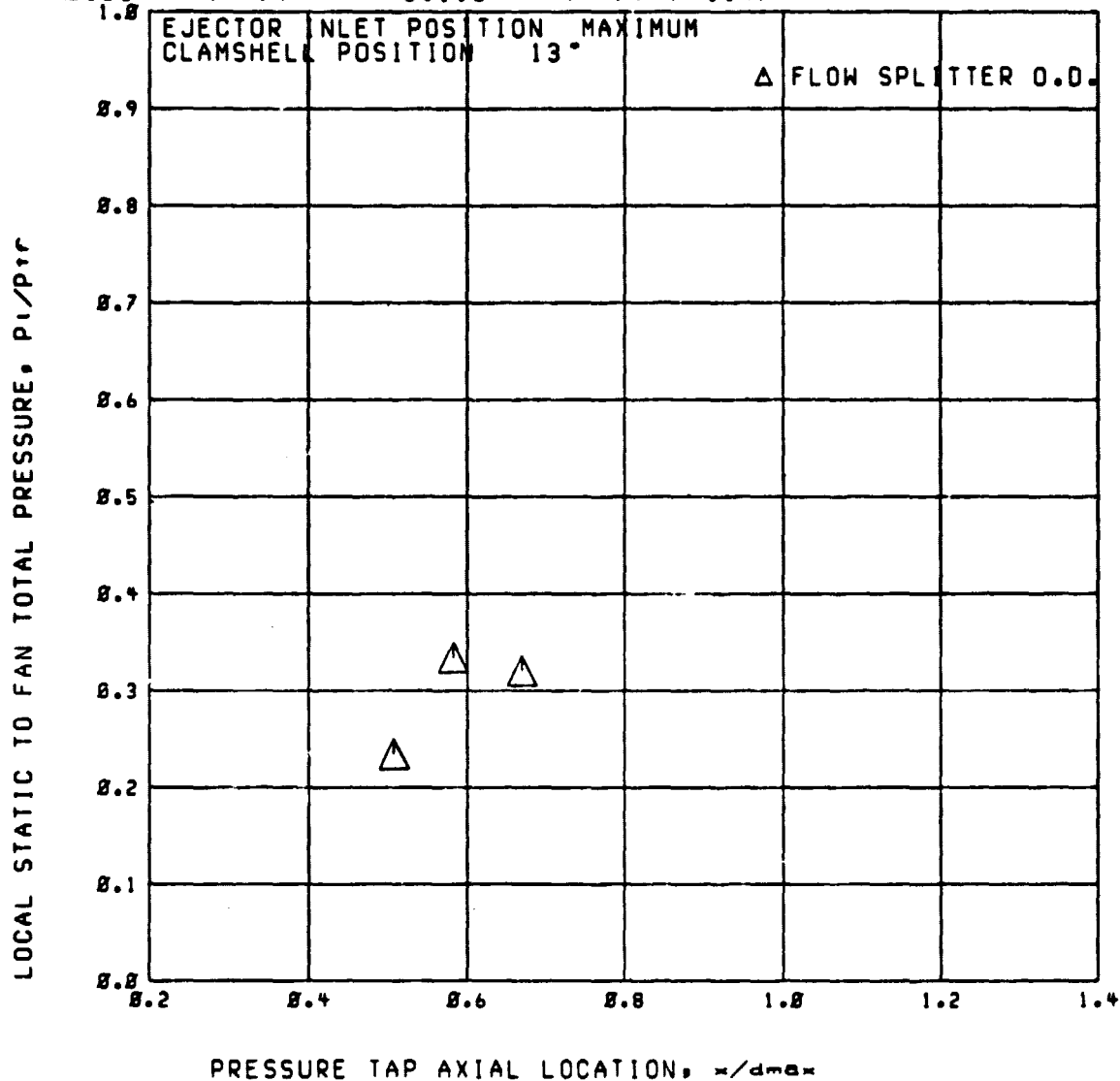
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 = 3.116$

$P_{tr}/P_{tr0} = 1.47$



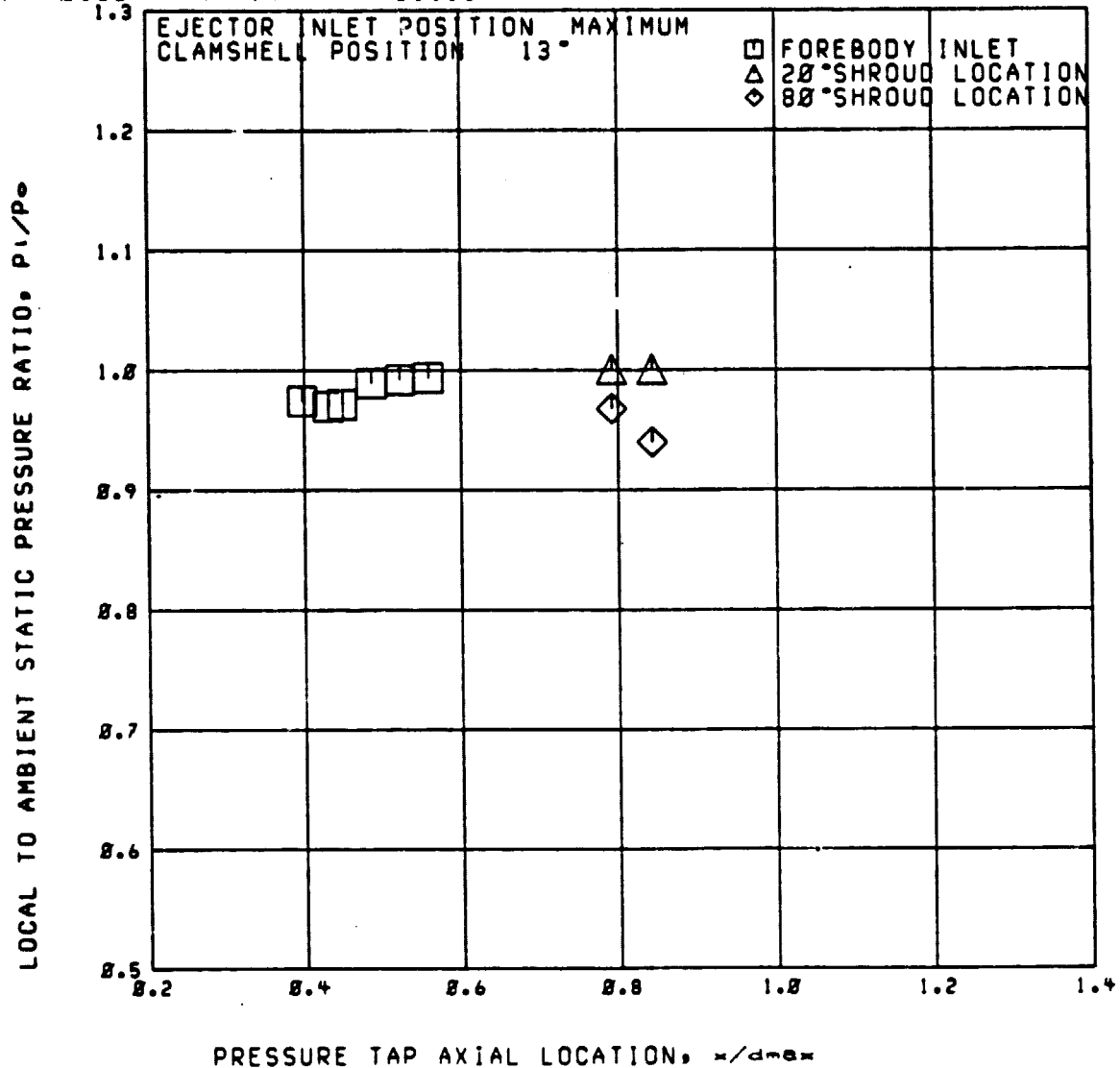
Run 26

RDG=1549

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

Mo = 0.36      P<sub>tr</sub>/P<sub>o</sub> = 3.116      P<sub>tr</sub>/P<sub>tr</sub> = 1.47 AT TAKEOFF



RUN 26

RDG=1552

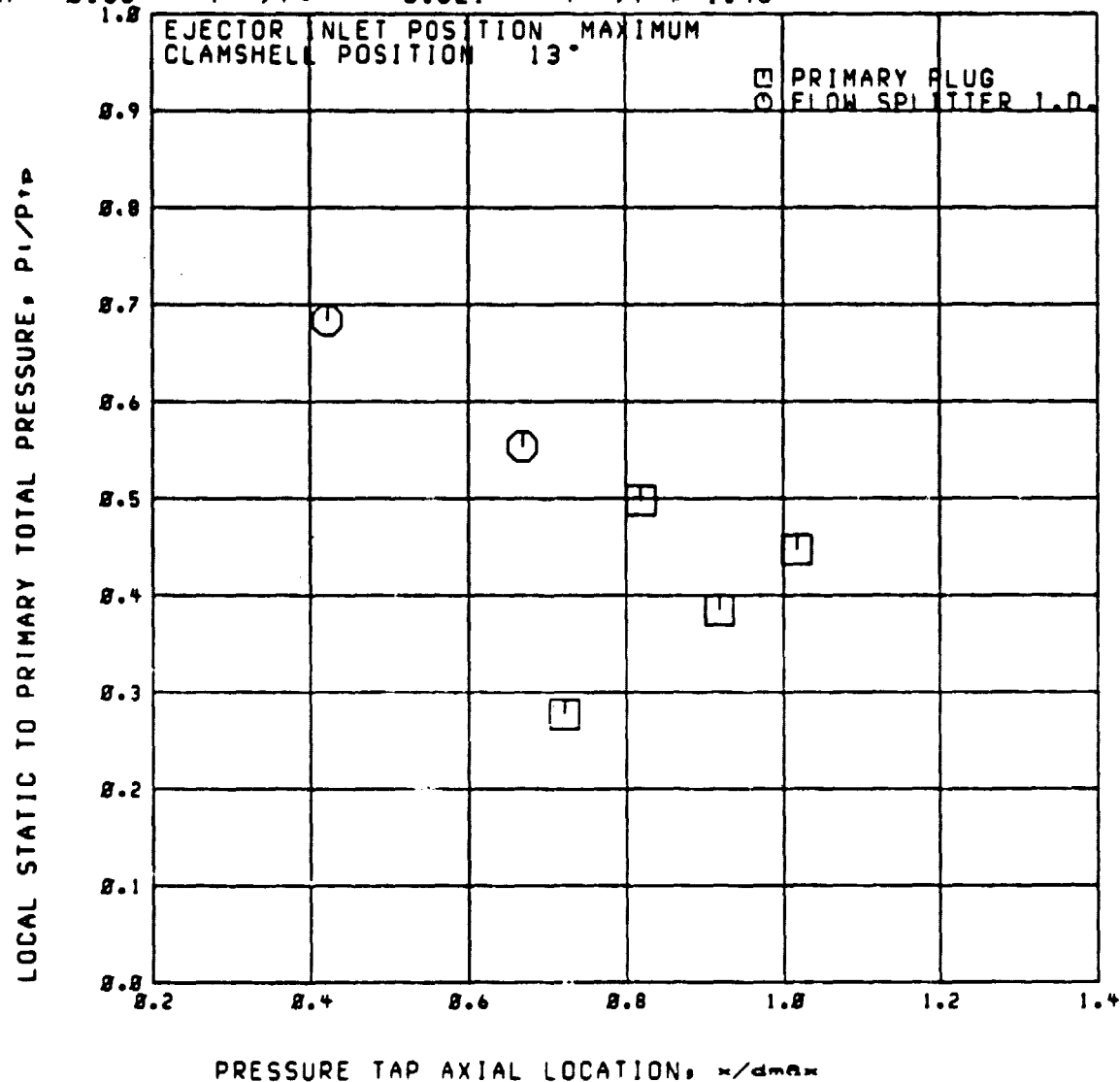
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_{02} = 3.621$

$P_{tr}/P_{tp} = 1.46$



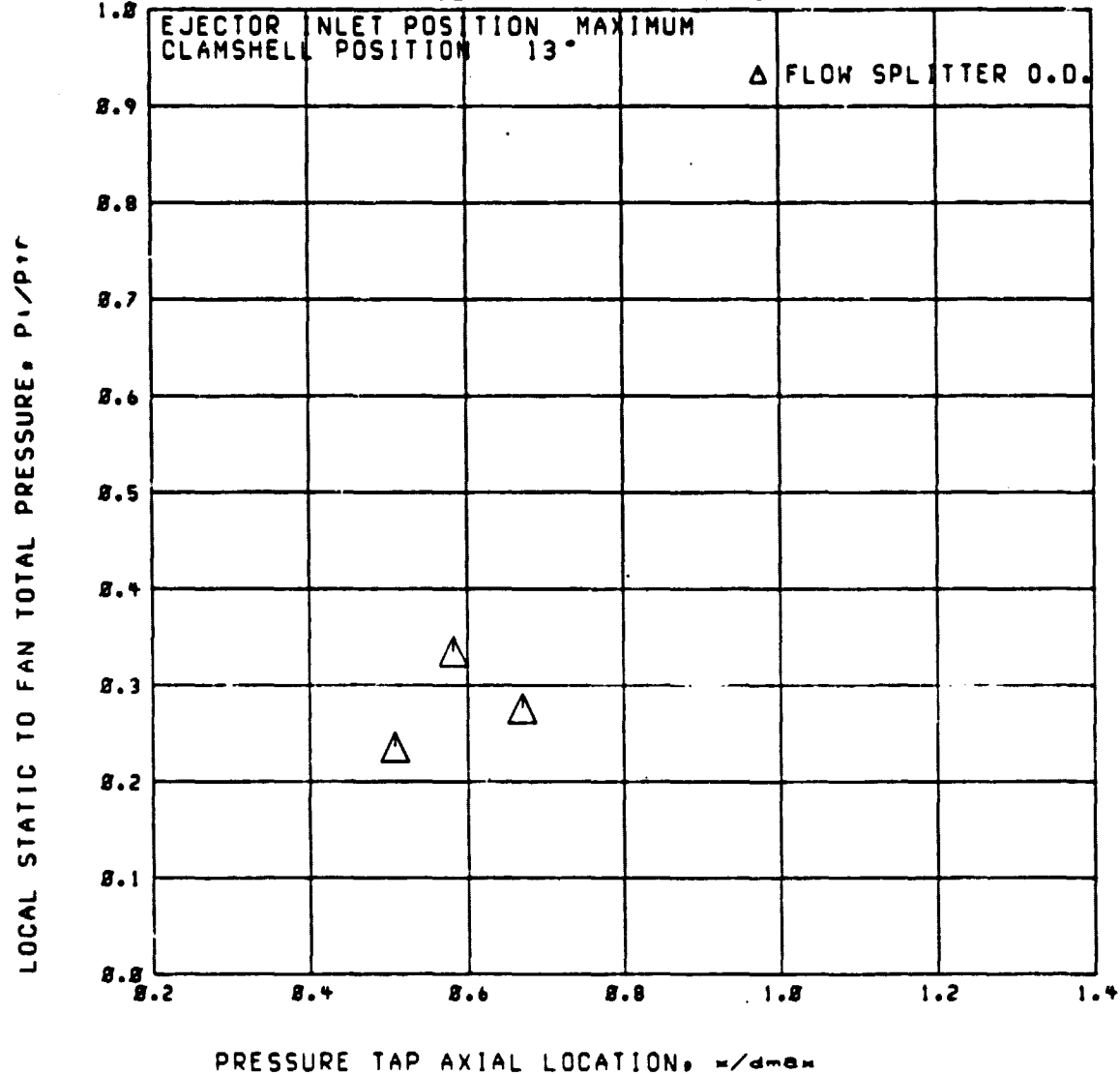
RUN 26

RDG=1552

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.36$   $P_{tr}/P_{\infty} = 3.621$   $P_{tr}/P_{sp} = 1.46$



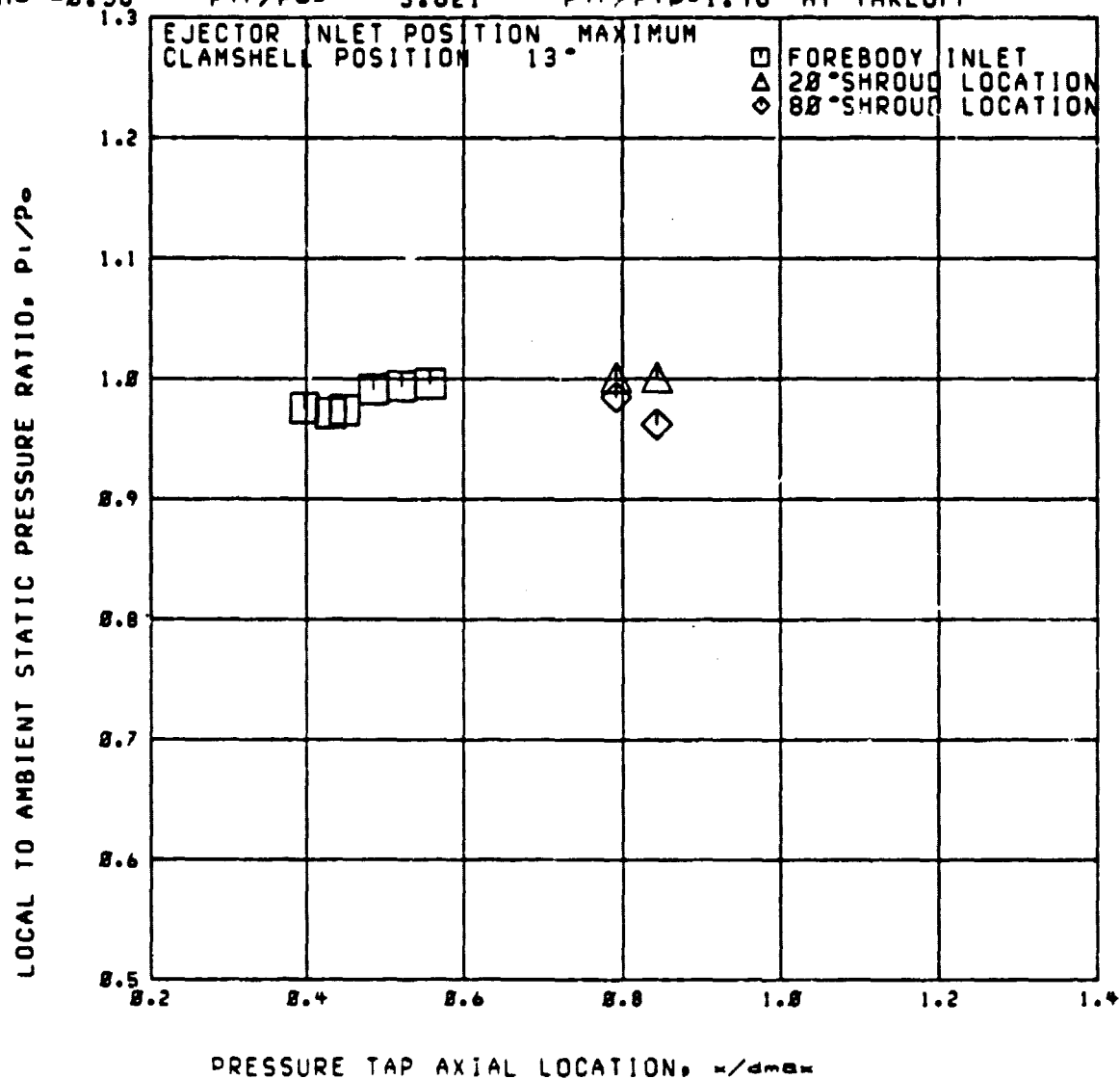
RUN 26

ROG=1552

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$   $P_{tr}/P_0 = 3.621$   $P_{tr}/P_{tr} = 1.46$  AT TAKEOFF



Run 26

C3

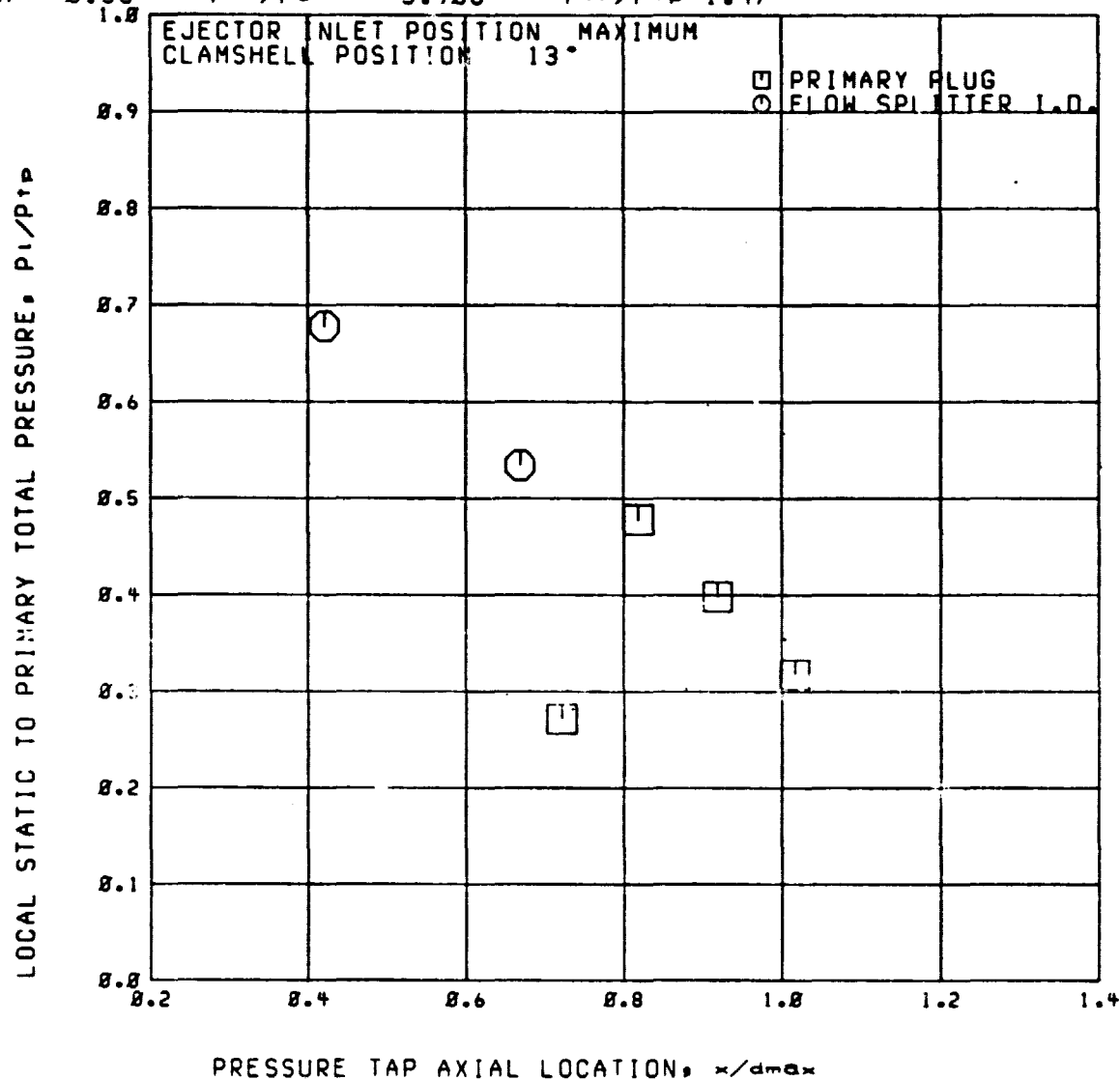
RDG=1553

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{ir}/P_0 = 3.986$

$P_{ir}/P_{ip} = 1.47$



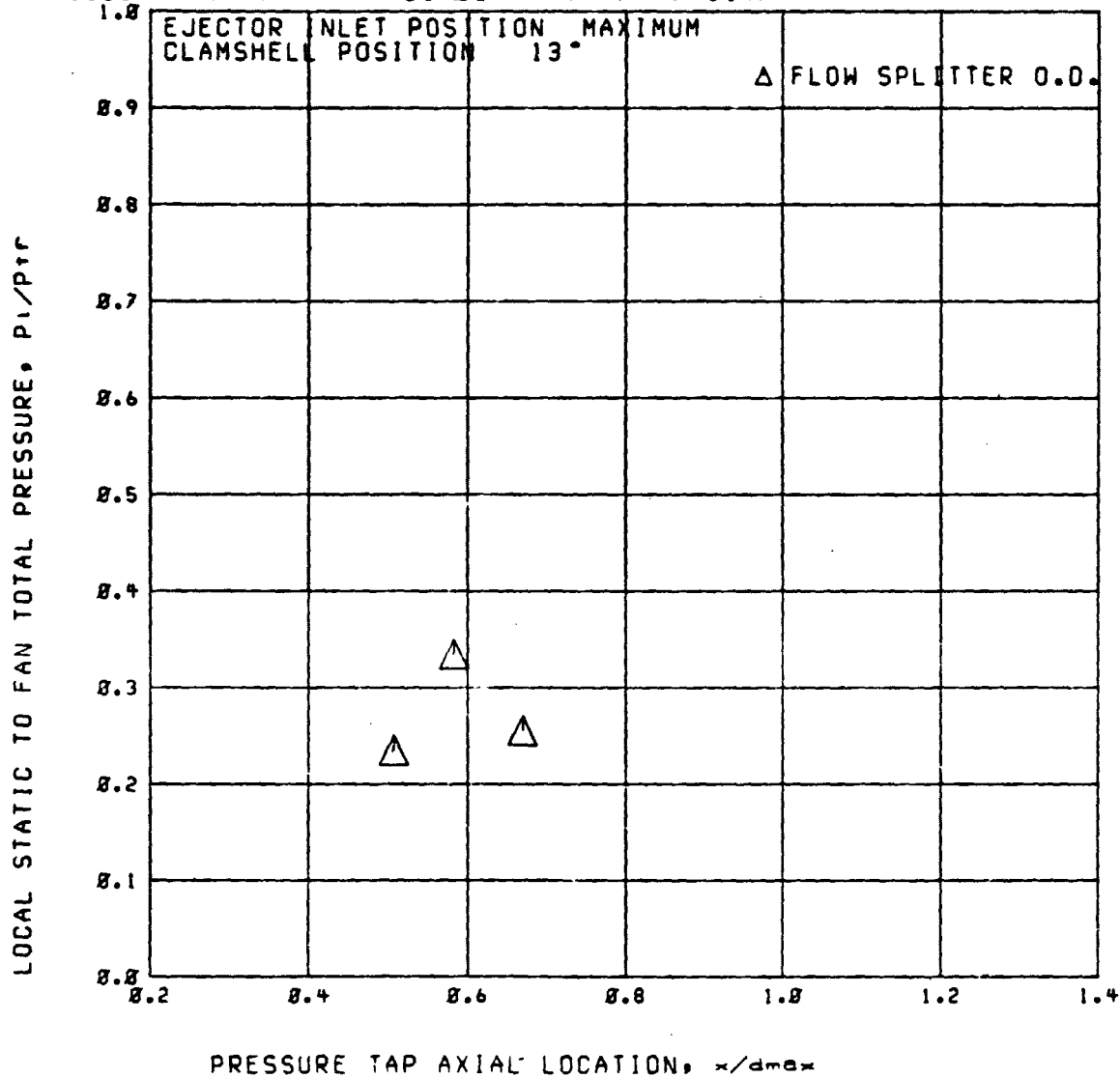
RUN 26

ROG-1553

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

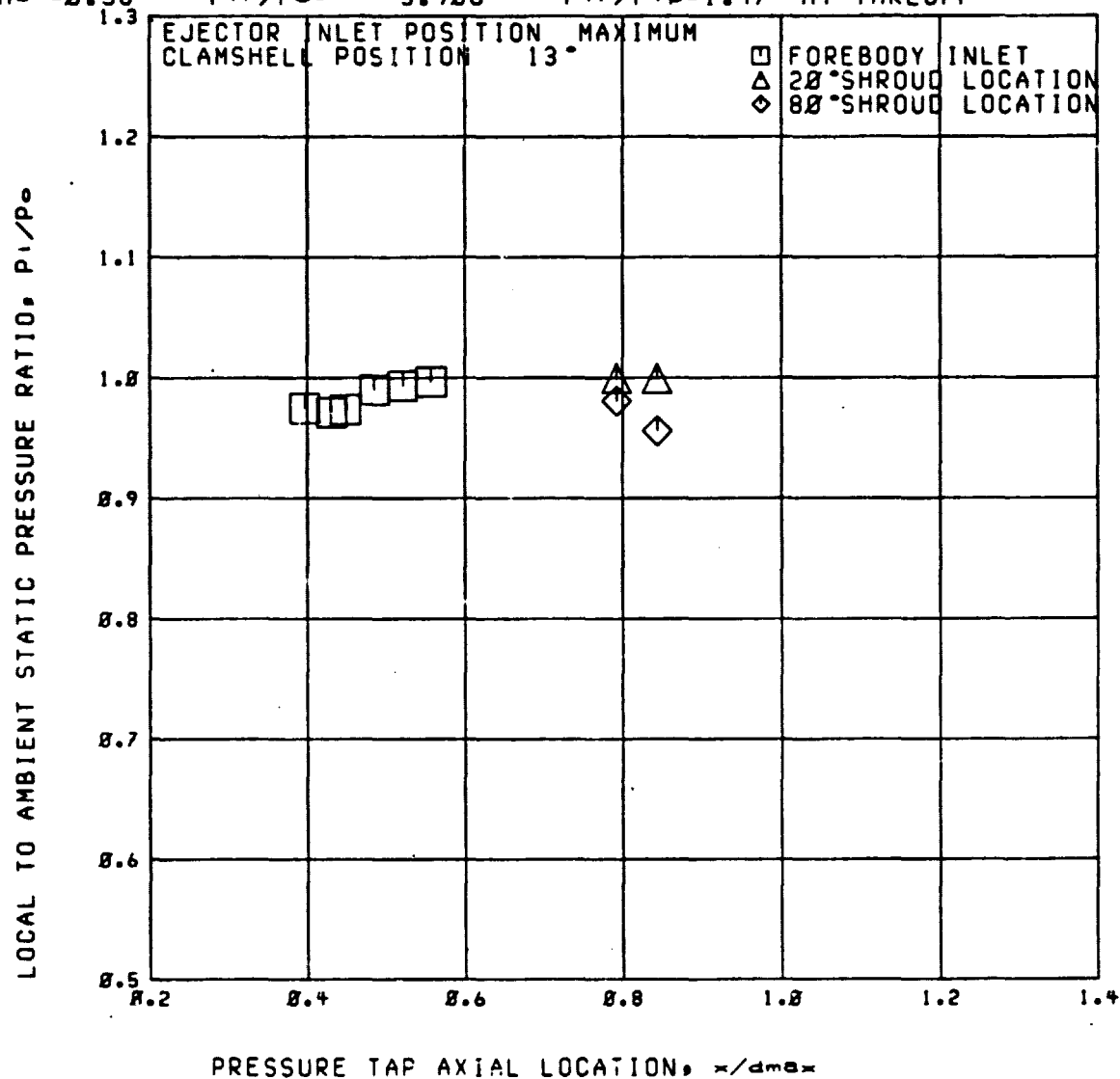
$M_0 = 0.36$   $P_{tr}/P_0 = 3.986$   $P_{tr}/P_{tp} = 1.47$



RDG = 1553

EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

Mo = 0.36      P<sub>ir</sub>/P<sub>o</sub> = 3.906      P<sub>ir</sub>/P<sub>ip</sub> = 1.47      AT TAKEOFF





RDG. 1593-1626

C3

TAKEOFF

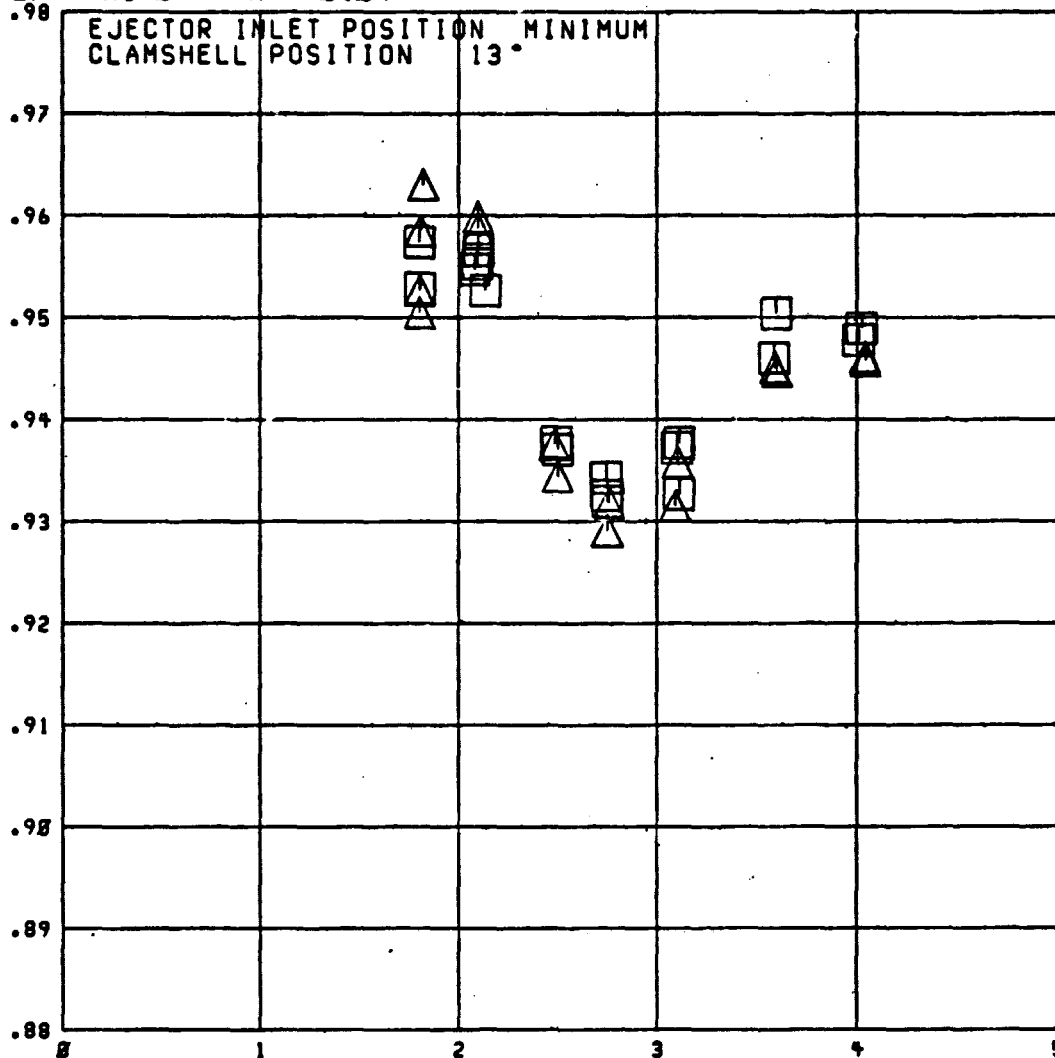
RUN 27

M0=8

M0 = 8.84

$P_{t0}/P_{t0} = \square = 1.46$   
 $\Delta = 1.78$

NOZZLE GROSS THRUST COEFFICIENT, CFPI



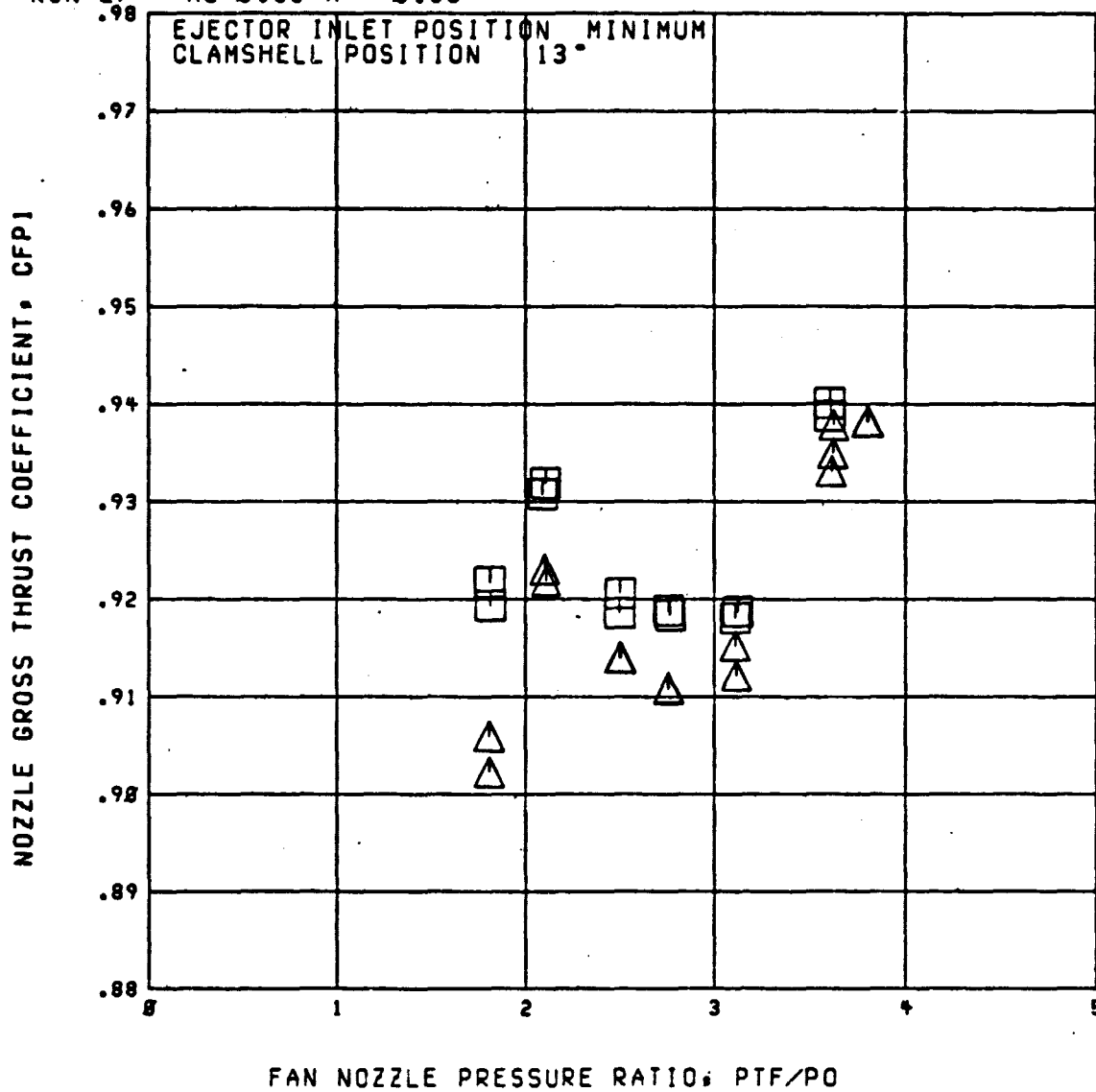
FAN NOZZLE PRESSURE RATIO, PTF/PO

ROQ. 1627-1653

C3  
TAKEOFF

$P_{tC}/P_{tD} = \square = 1.46$   
 $\Delta = 1.78$

RUN 27  $M_0 = 0.36$   $M_e = 0.36$



RDG. 1593-1626

C3

TAKEOFF

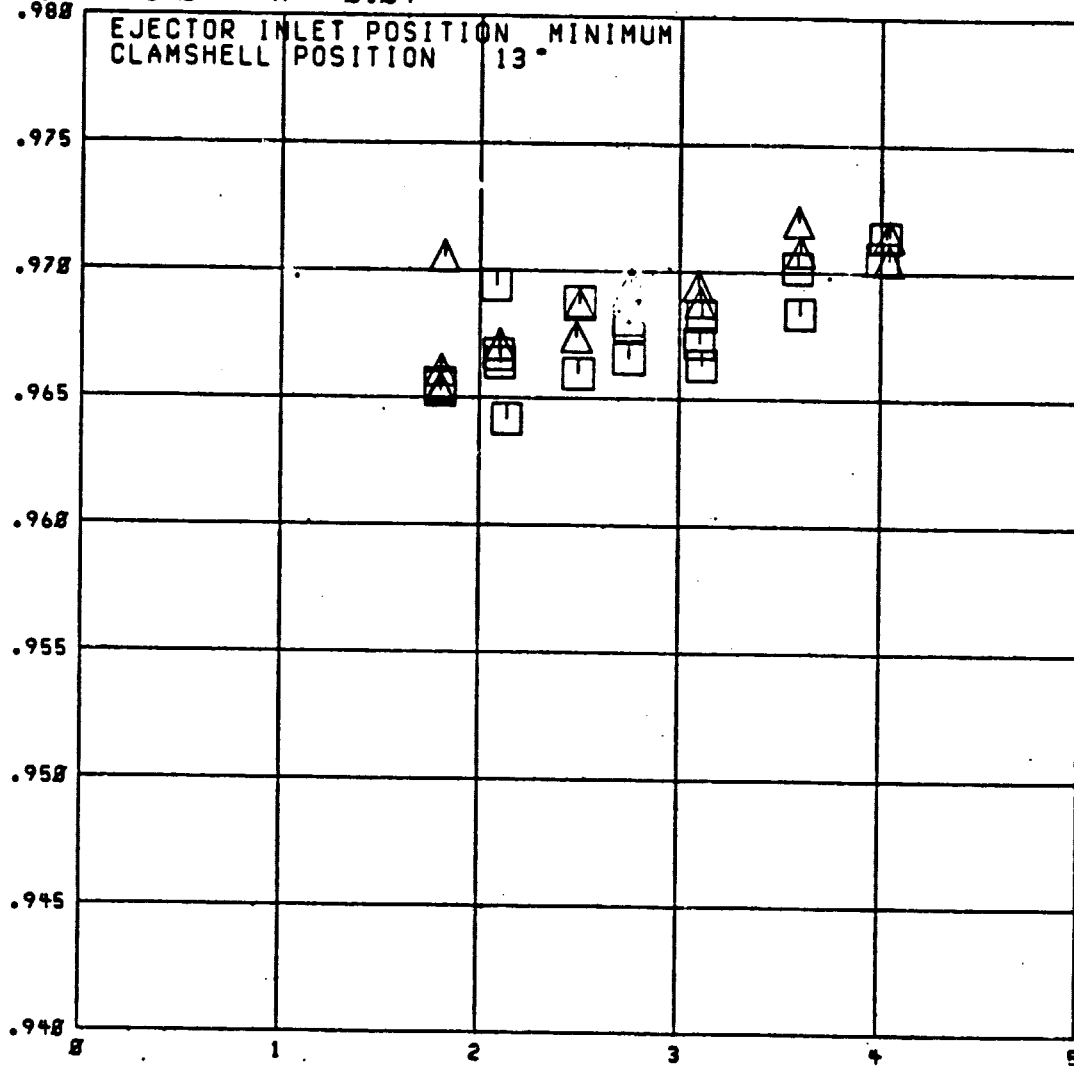
RUN 27

$M_0 = 0$

$M = 0.84$

$P_{t0}/P_{t2} = \square = 1.46$   
 $\Delta = 1.70$

FAN-NOZZLE FLOW COEFFICIENT, CDF



FAN NOZZLE PRESSURE RATIO,  $PTF/P_0$

RDG. 1627-1653

C3

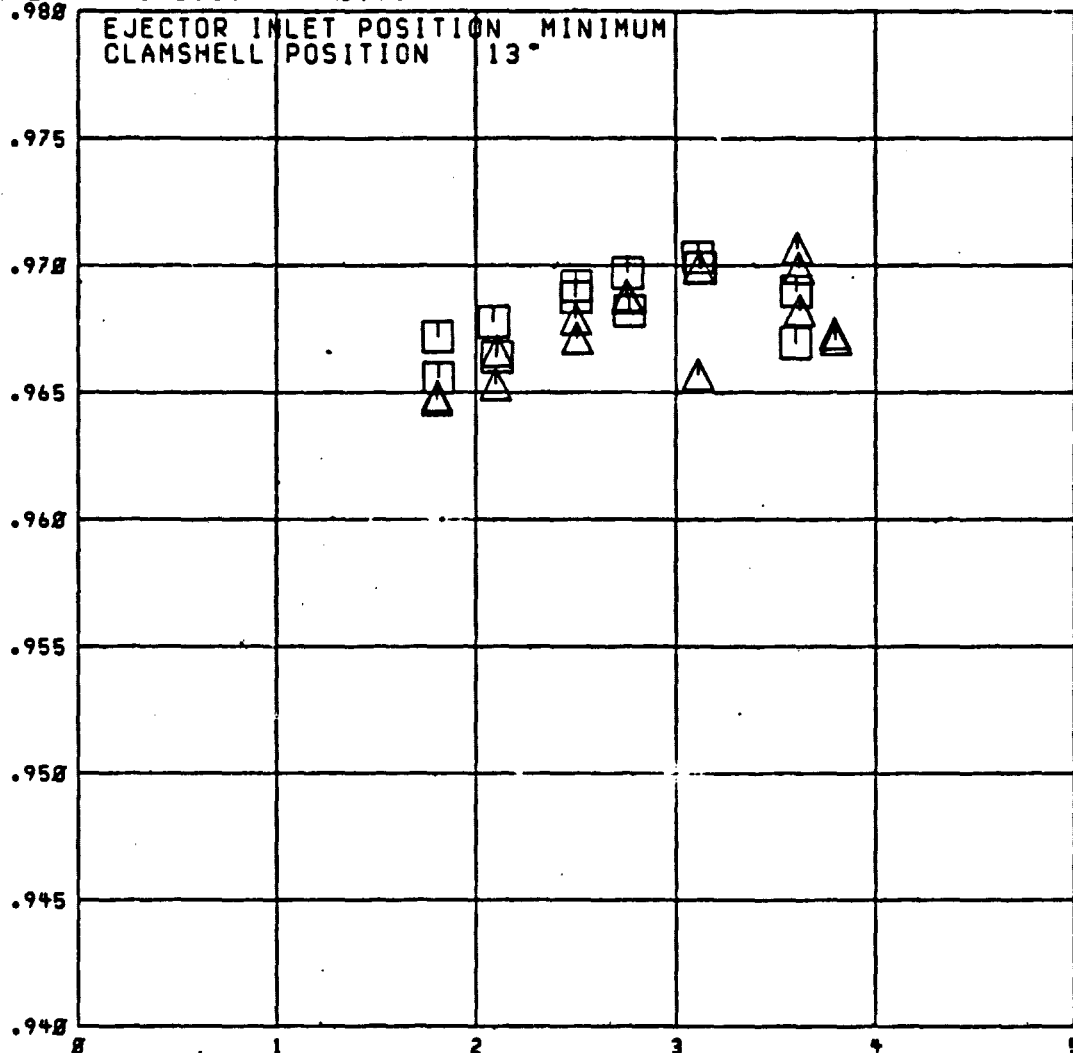
TAKEOFF

RUN 27

MO=0.36 M=0.36

$P_{TC}/P_{TP} = \square = 1.46$   
 $\Delta = 1.78$

FAN-NOZZLE FLOW COEFFICIENT, CDF



FAN NOZZLE PRESSURE RATIO, PTF/PO

R06. 1593-1626

C3  
TAKEOFF

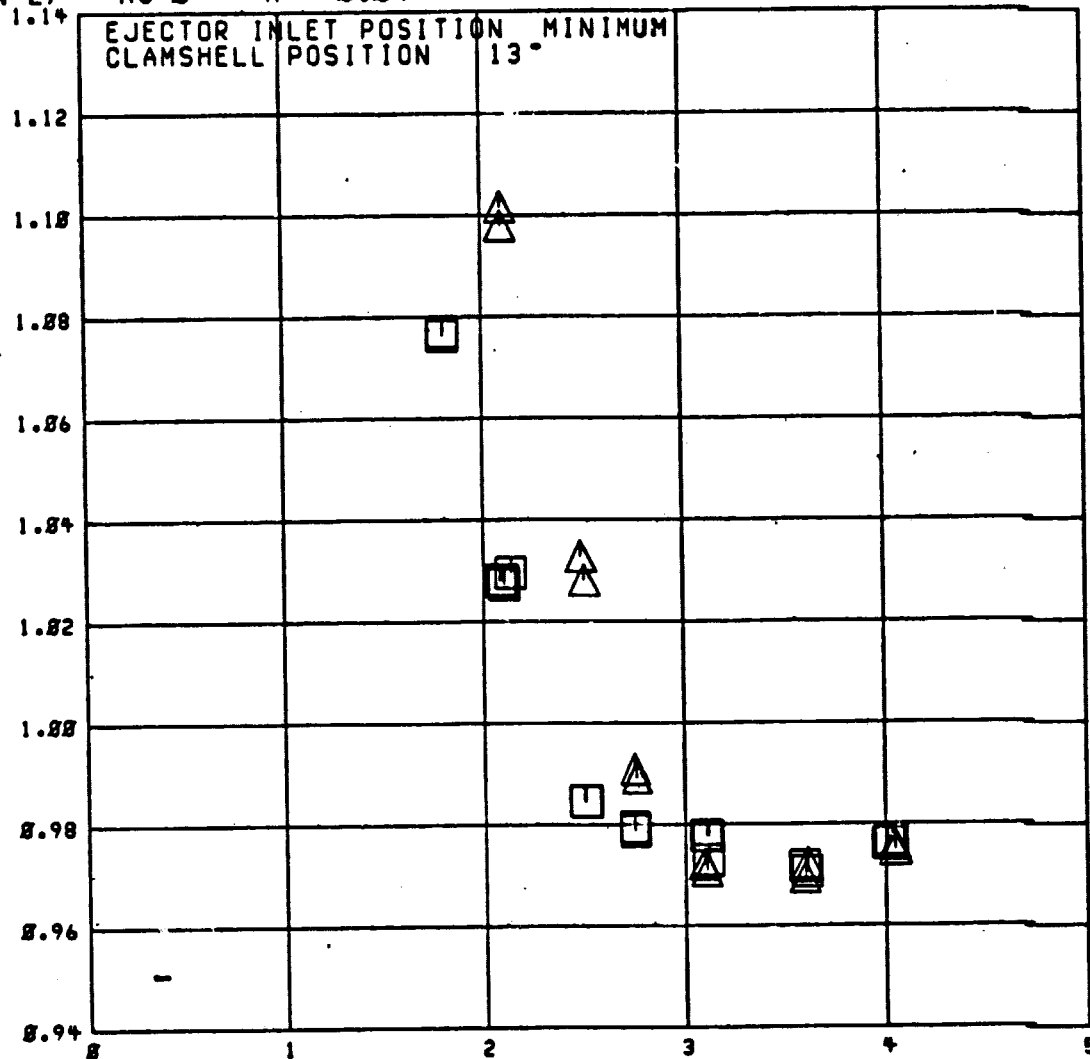
RUN 27

M0=8

M0 = 8.84

$P_{10}/P_{100} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, COP



FAN NOZZLE PRESSURE RATIO, PTF/PO

ROG. 1627-1653

C3

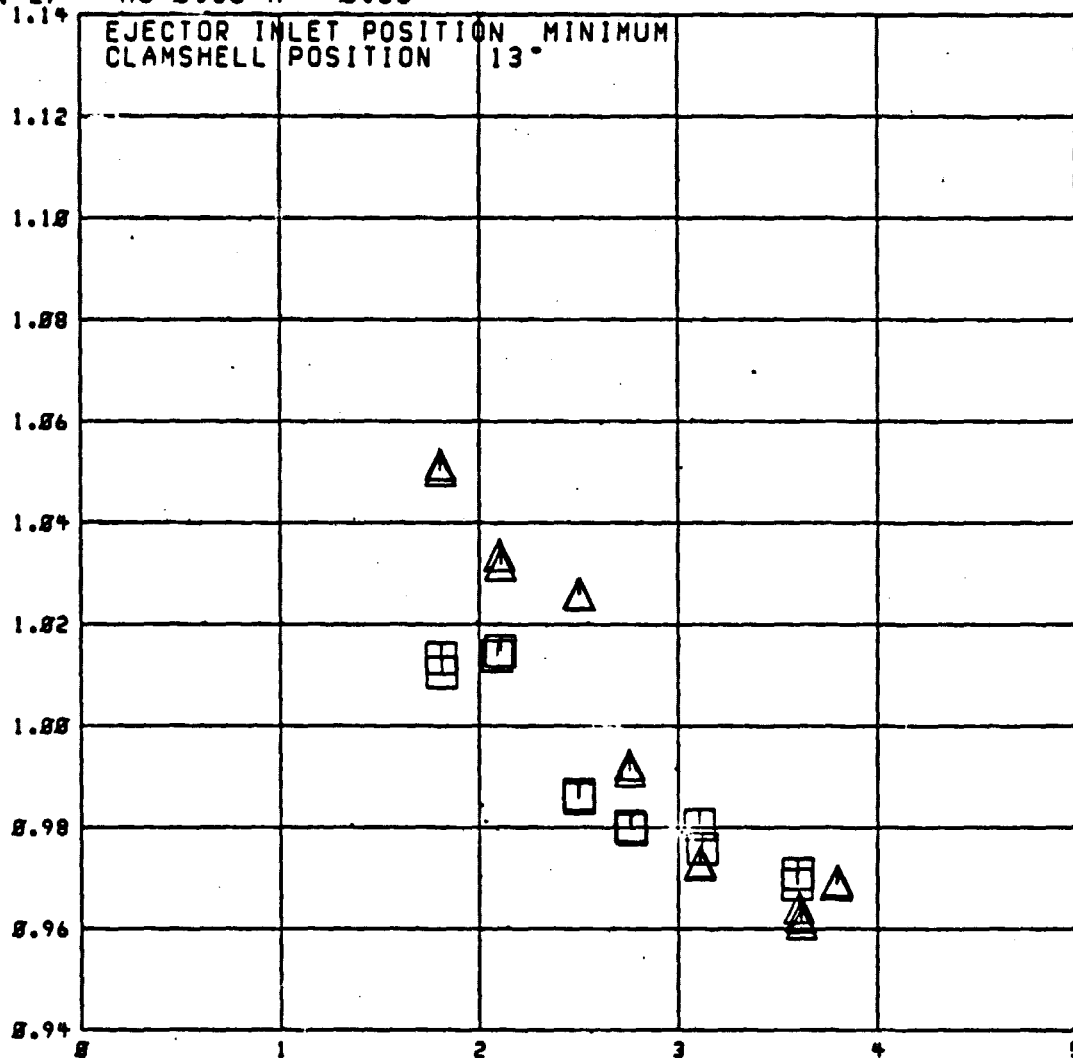
TAKEOFF

RUN 27

MO=0.36 M=0.36

$P_{TC}/P_{TP} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP



FAN NOZZLE PRESSURE RATIO, PTF/PO

Run 27

RDG=1689

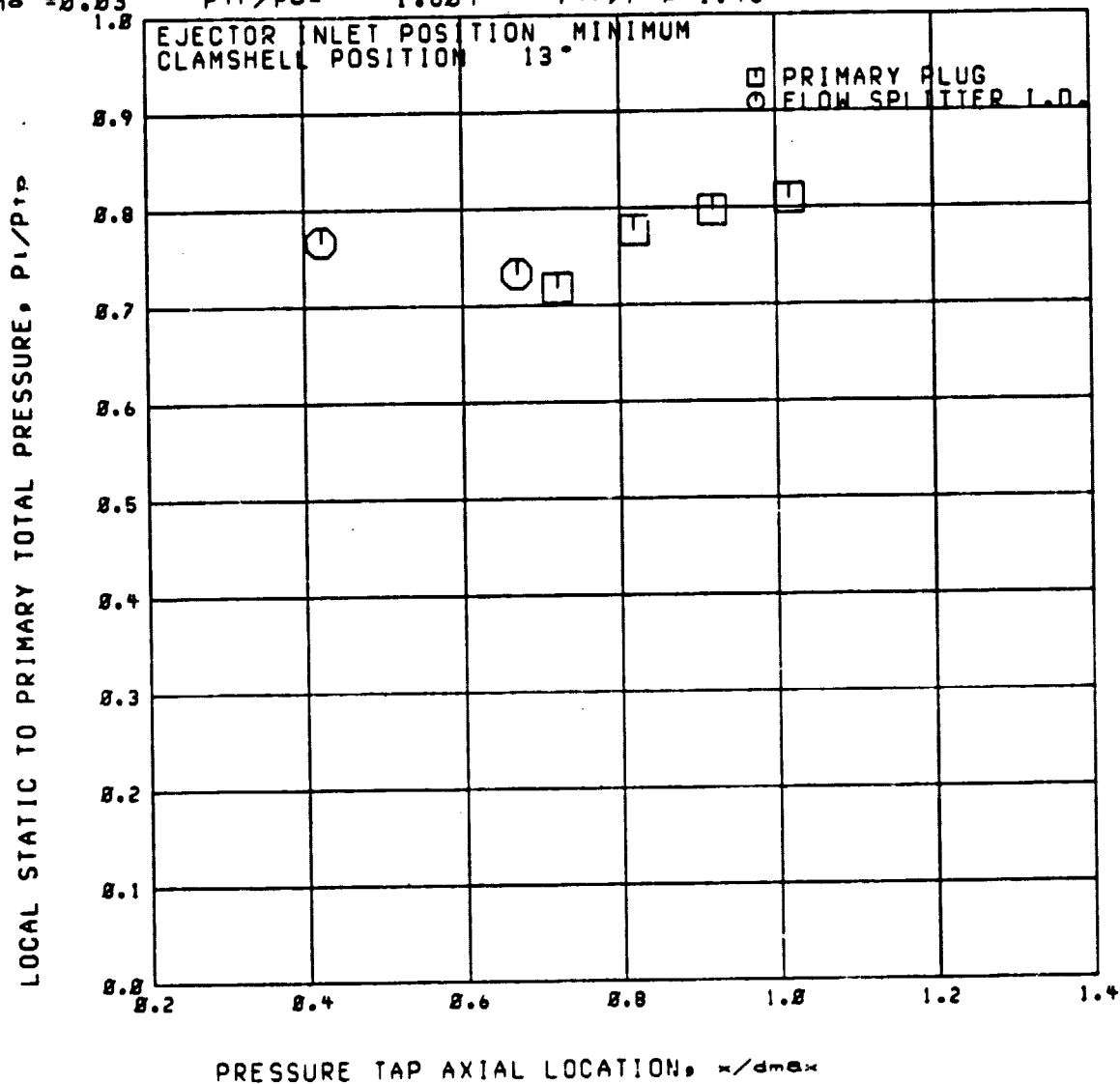
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.83$

$P_{tr}/P_0 = 1.884$

$P_{tr}/P_{tp} = 1.45$



RUN 27

RDG=1689

C3

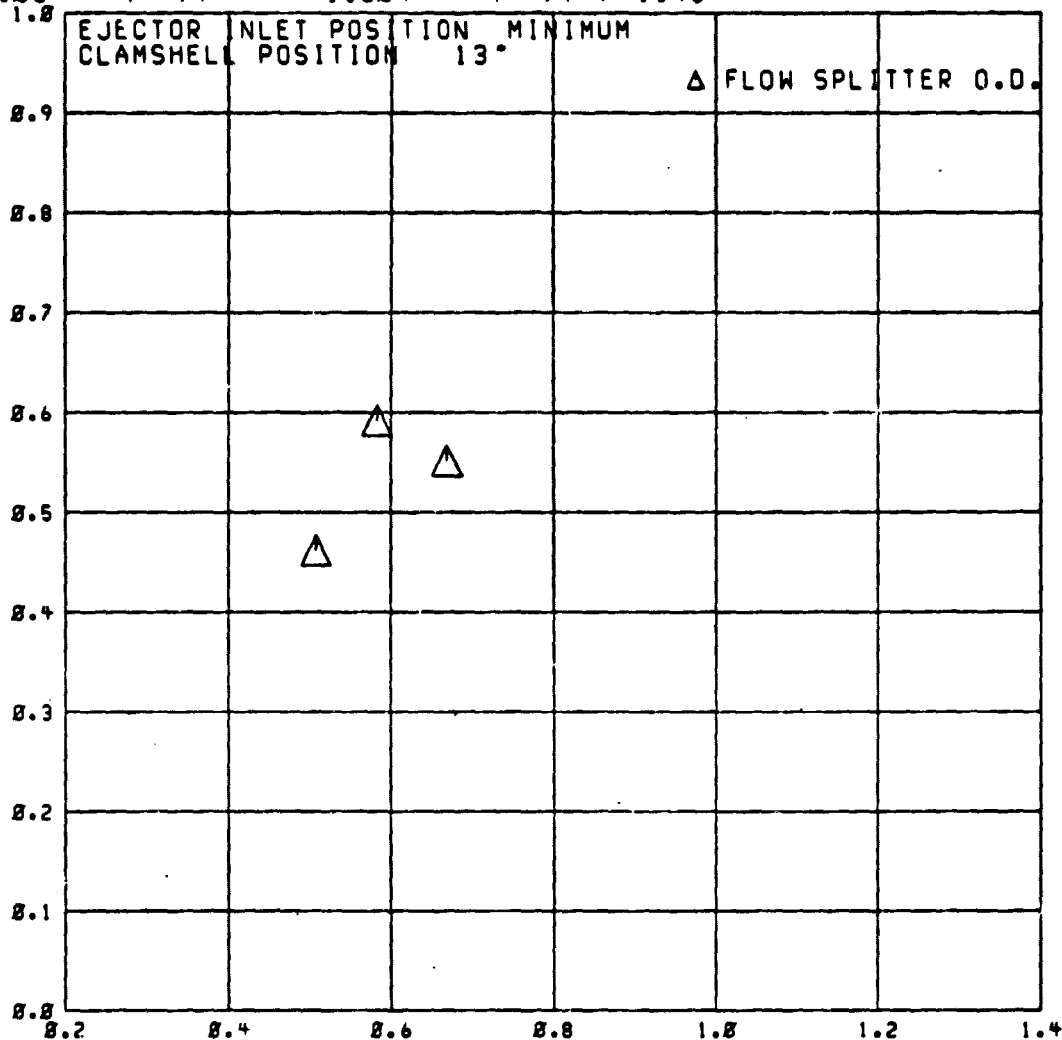
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.83$

$P_{tr}/P_0 = 1.804$

$P_{tr}/P_{tr0} = 1.45$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$



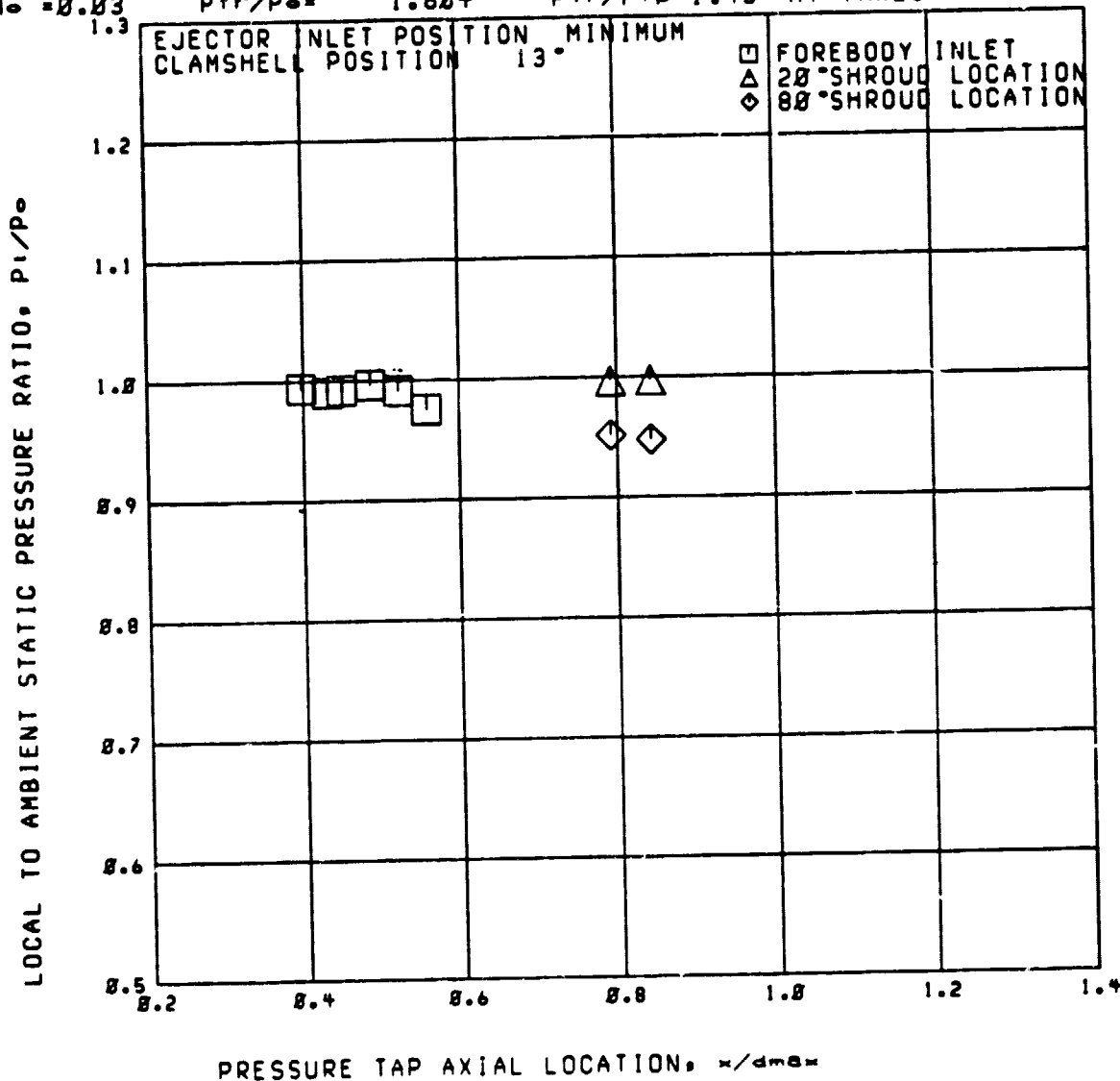
RUN 27

RDG=1689

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.83$   $P_{tr}/P_o = 1.884$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



RUN 27

RDG=1618

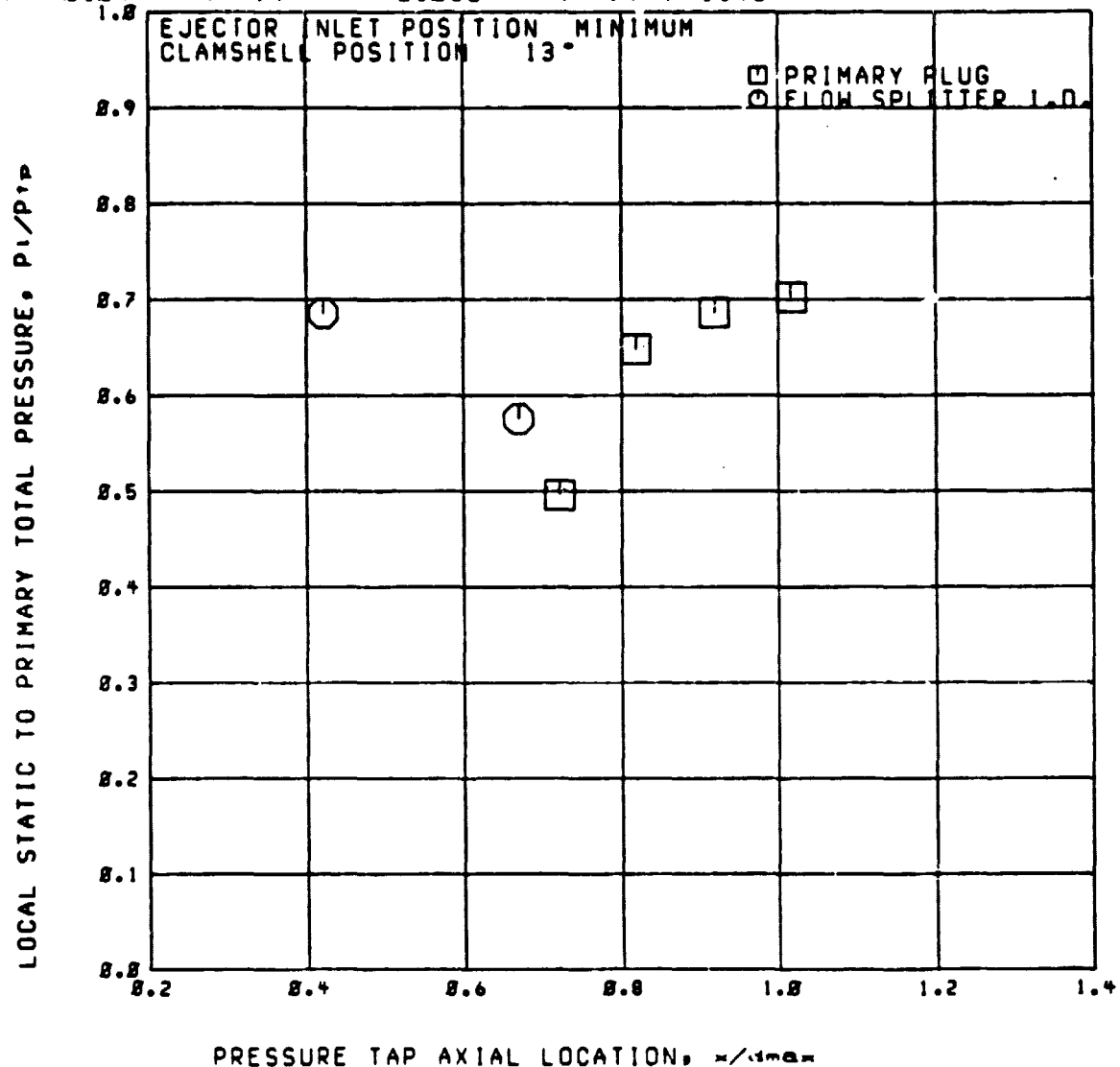
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.84$

$P_{1c}/P_{0c} = 2.883$

$P_{1c}/P_{1p} = 1.43$



RUN 27

RDG=1610

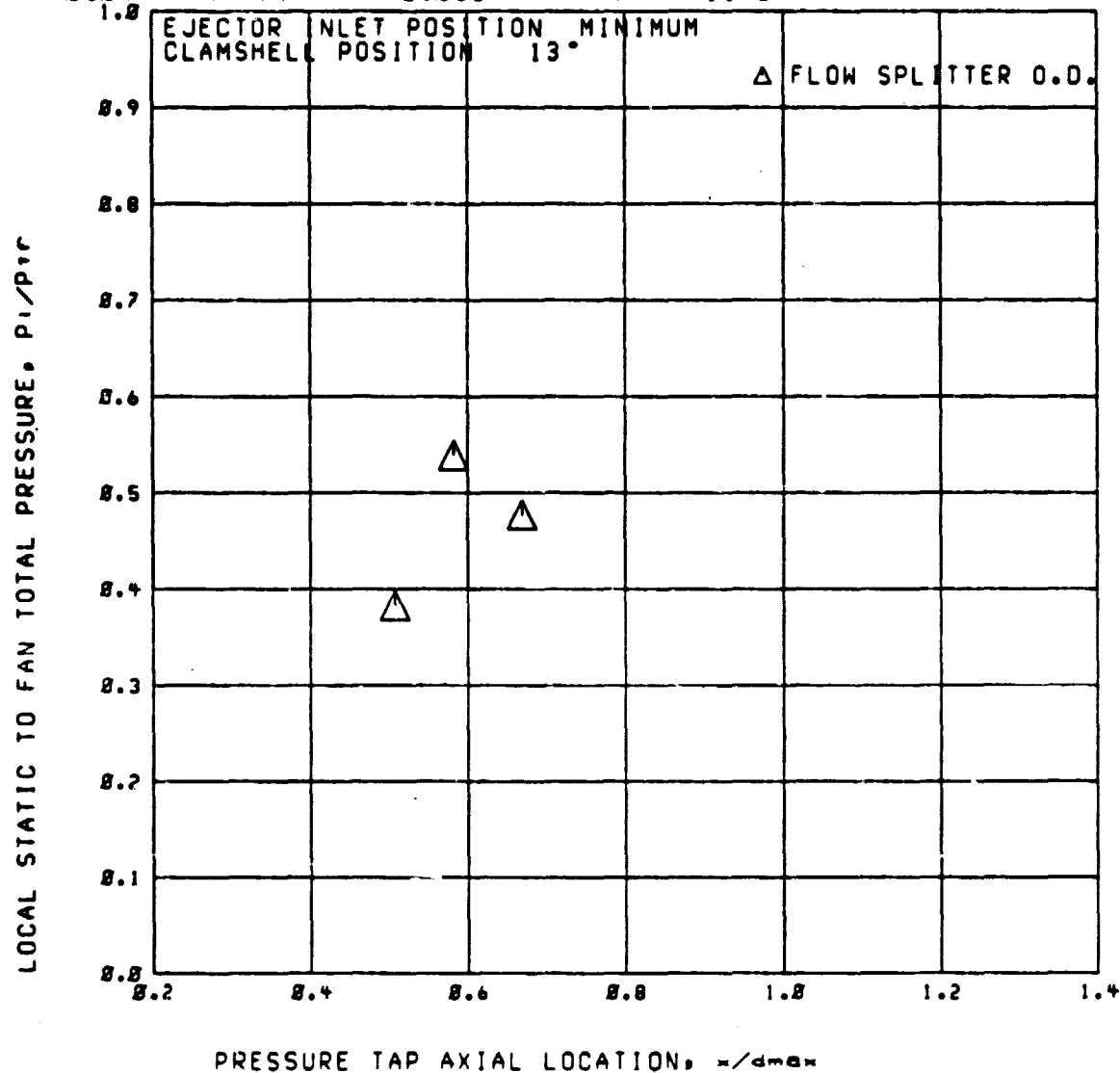
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.84$

$P_{1c}/P_0 = 2.033$

$P_{1c}/P_{1s} = 1.43$



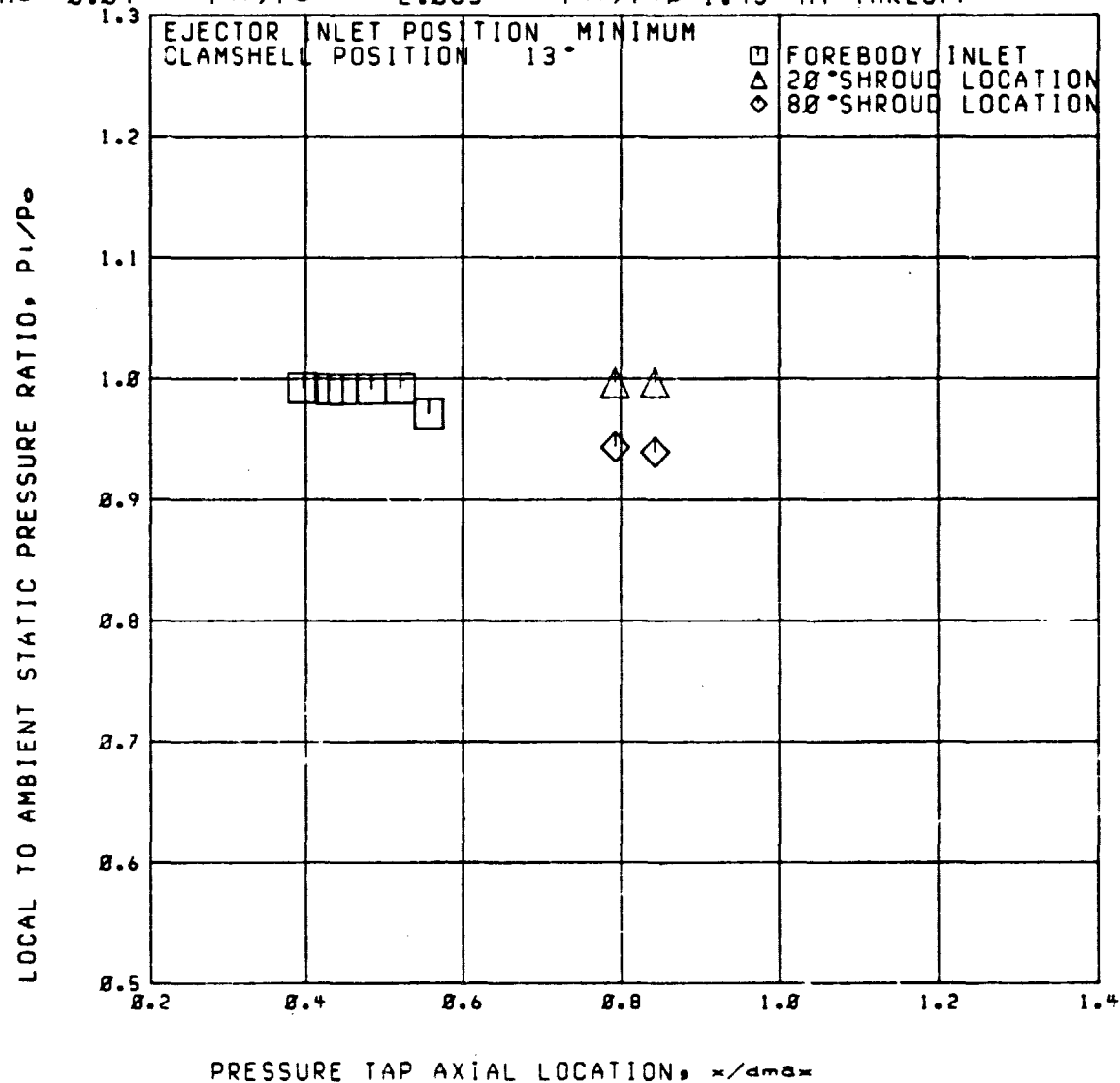
Run 27

RDG=1618

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.04$   $P_{tr}/P_0 = 2.083$   $P_{tr}/P_{tr} = 1.43$  AT TAKEOFF



Run 27

RDG=1611

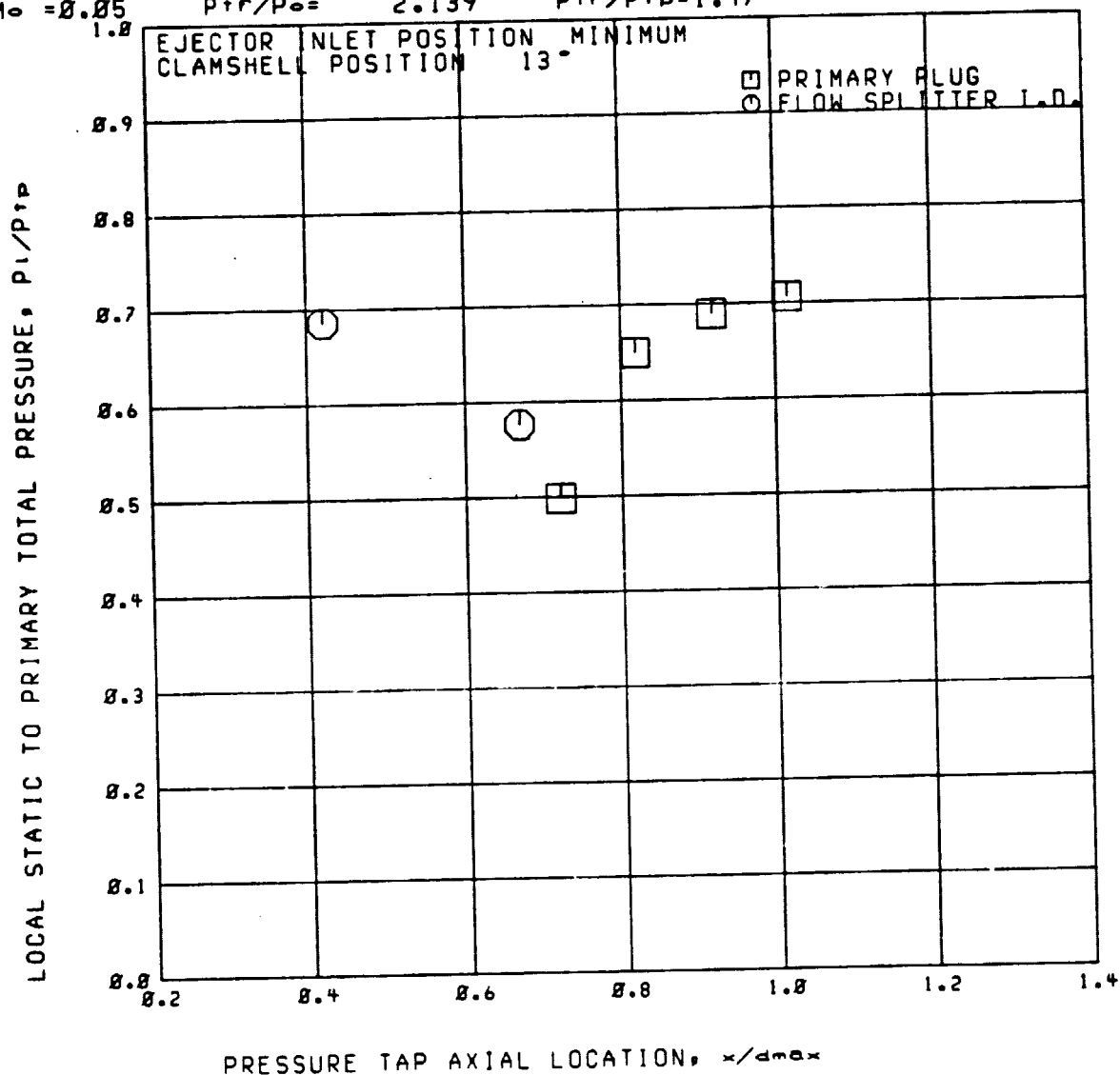
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.05$

$P_{tr}/P_o = 2.139$

$P_{tr}/P_{tp} = 1.47$



RUN 27

RDG=1611

C3

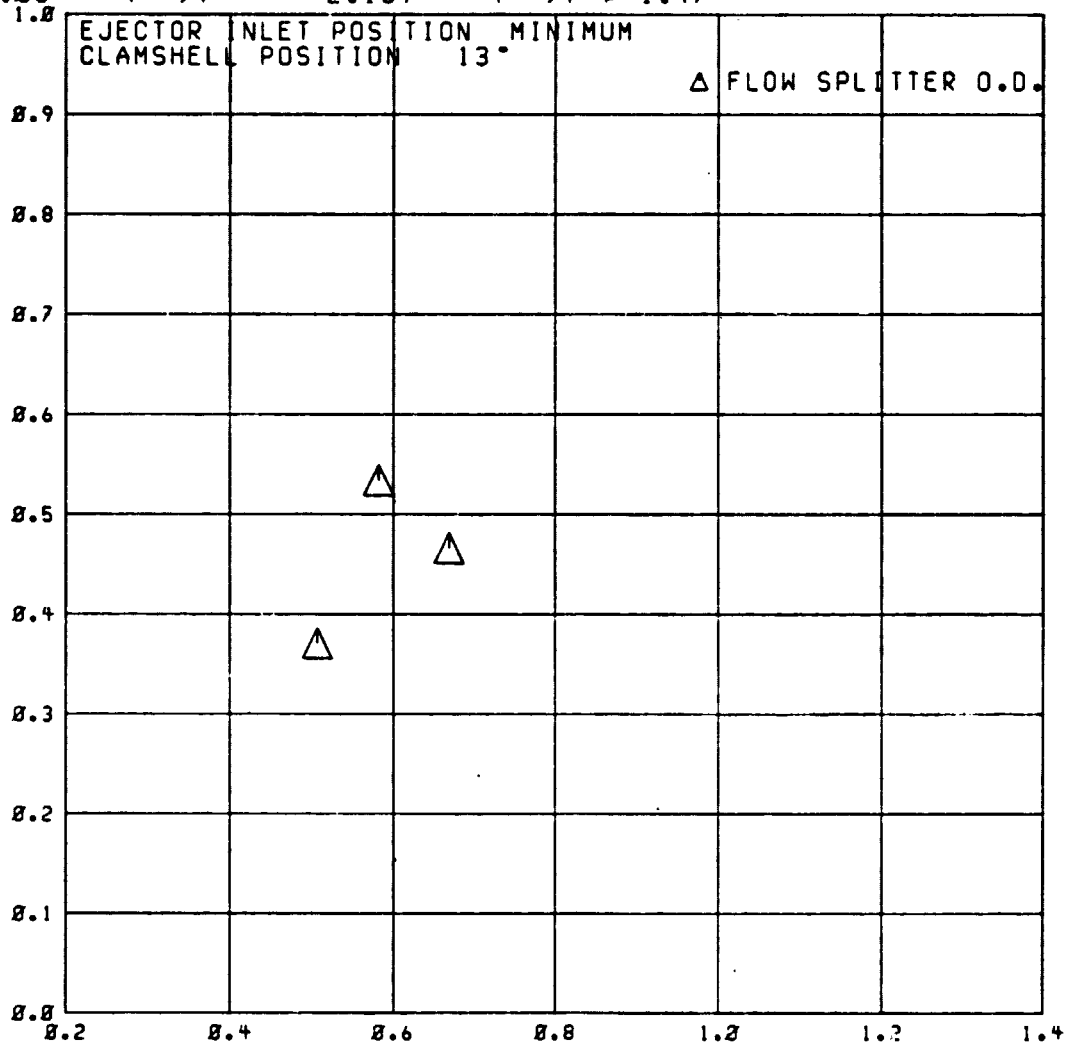
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$

$P_{tr}/P_0 = 2.139$

$P_{tr}/P_{tp} = 1.47$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

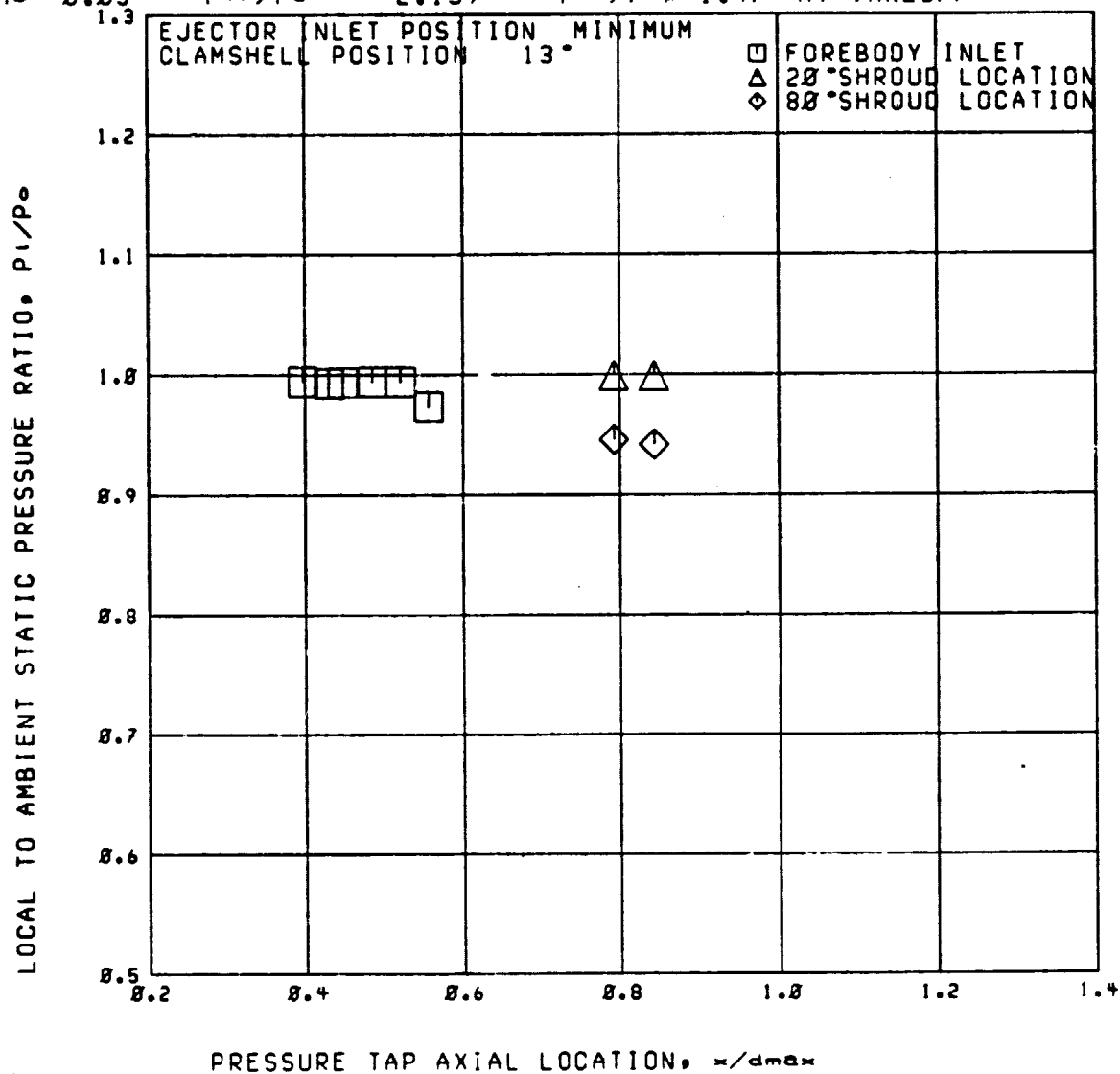
RUN 27

RDG=1611

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.05$      $P_{1c}/P_0 = 2.139$      $P_{1c}/P_{1p} = 1.47$  AT TAKEOFF



RUN 27

RDG=1612

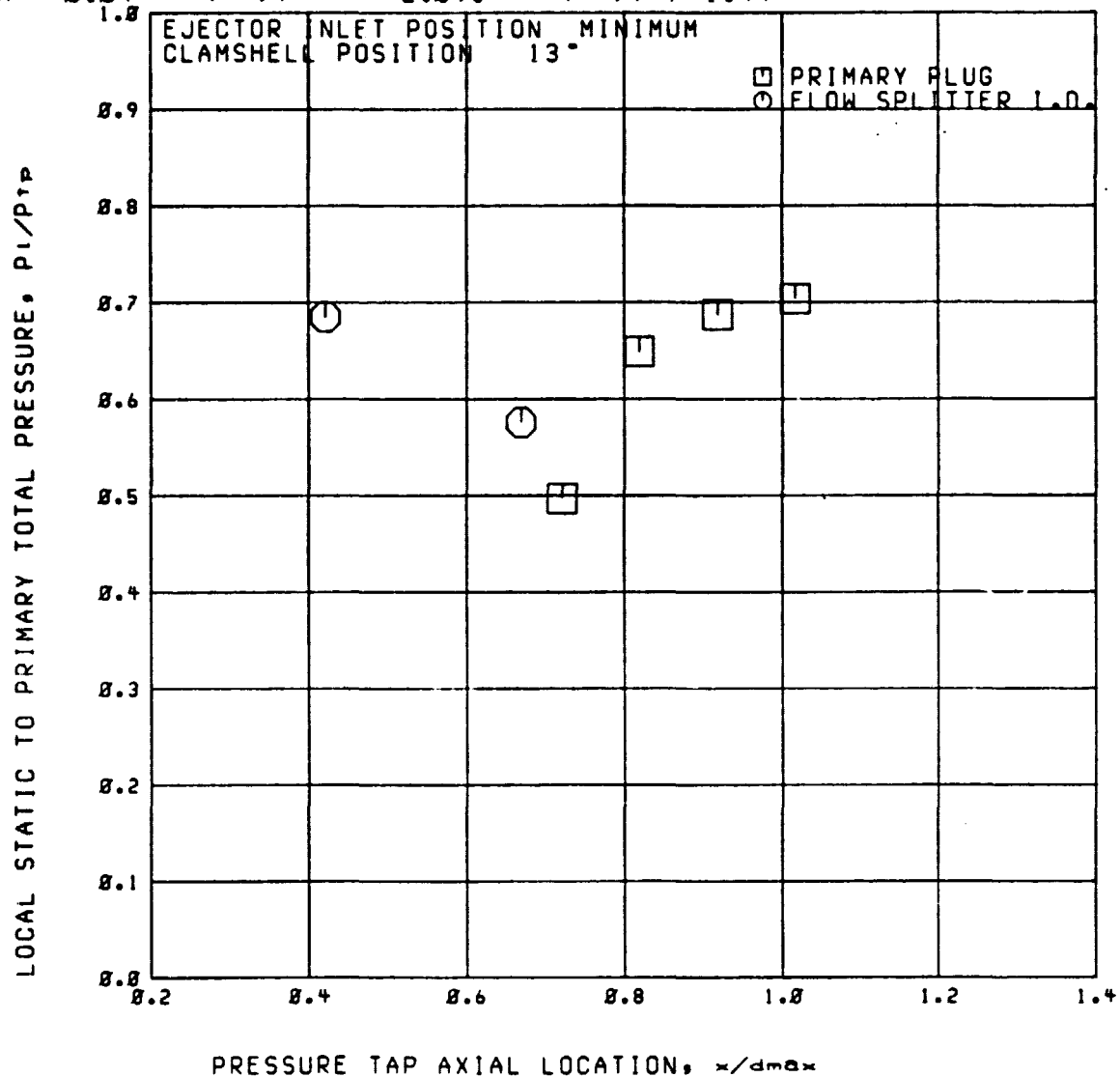
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.04$

$P_{tr}/P_0 = 2.098$

$P_{tr}/P_{tp} = 1.44$





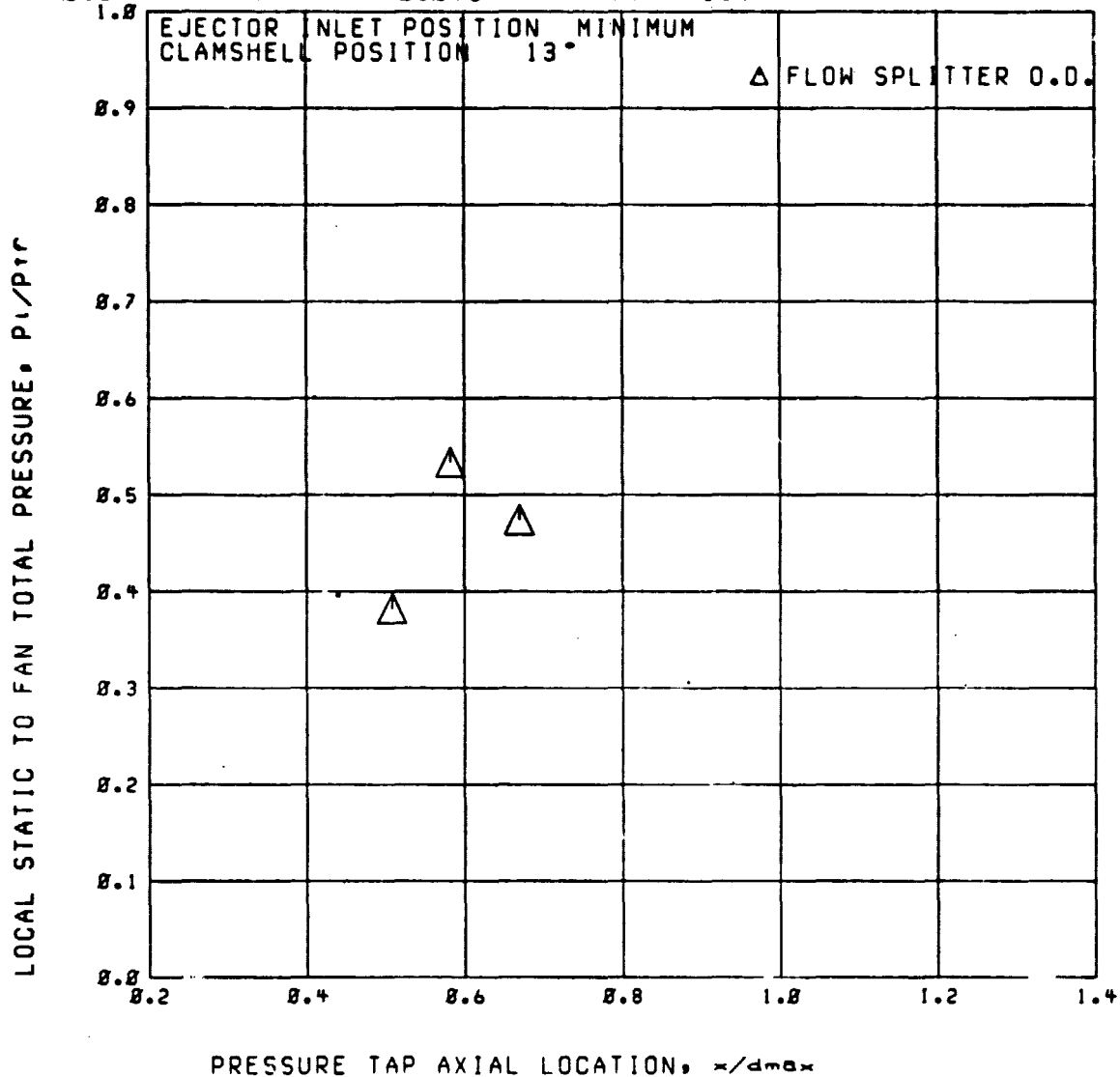
Run 27

RDG=1612

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.04$   $P_{tr}/P_0 = 2.098$   $P_{tr}/P_{tp} = 1.44$



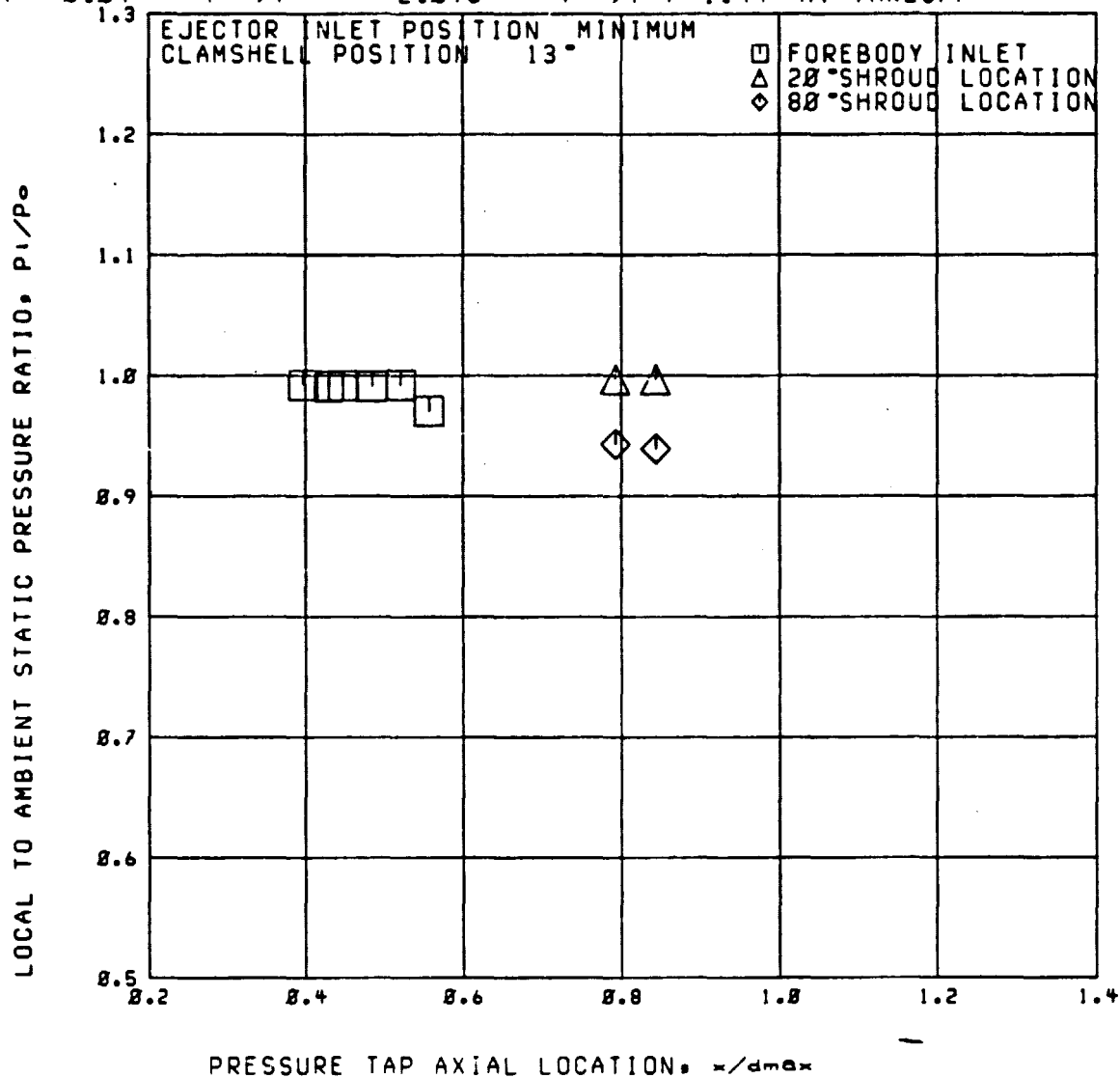
RUN 27

RDG=1612

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.84$   $P_{tr}/P_0 = 2.098$   $P_{tr}/P_{tp} = 1.44$  AT TAKEOFF



RUN 27

RDG=1613

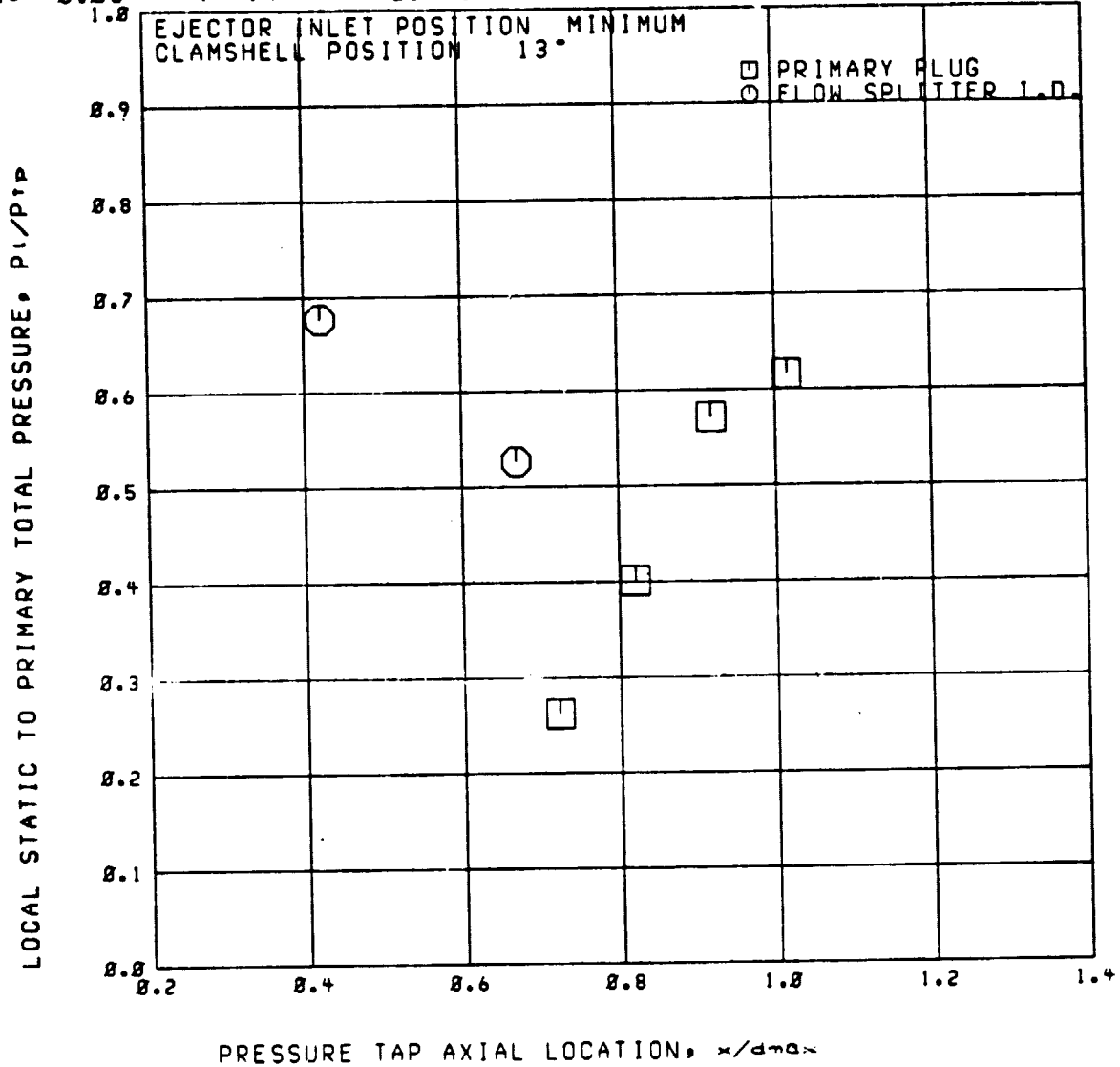
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.85$

$P_{ir}/P_o = 2.498$

$P_{ir}/P_{ip} = 1.45$



RUN 27

C3

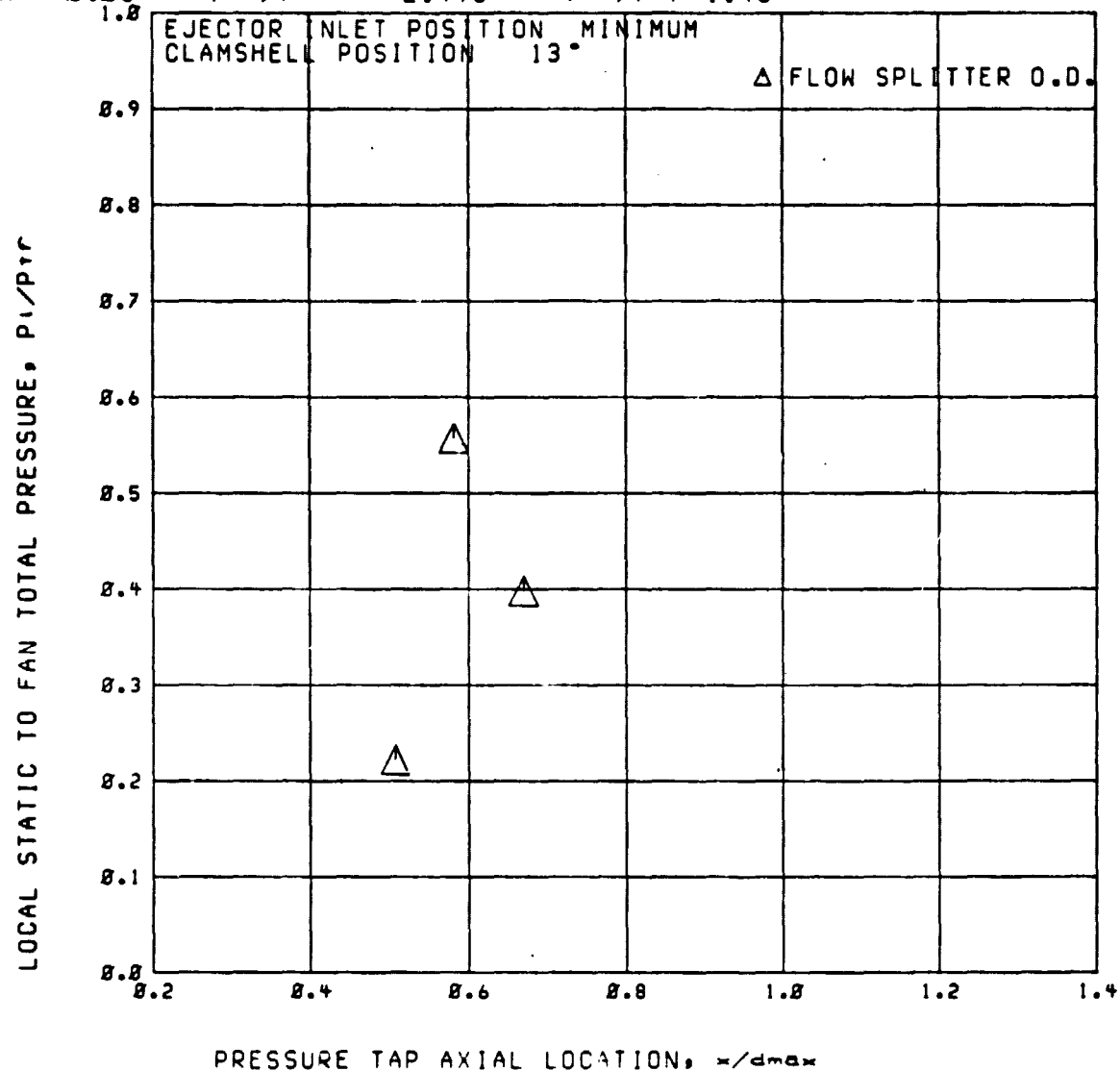
RDG=1613

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$

$P_{tr}/P_0 = 2.498$

$P_{tr}/P_{tr0} = 1.45$



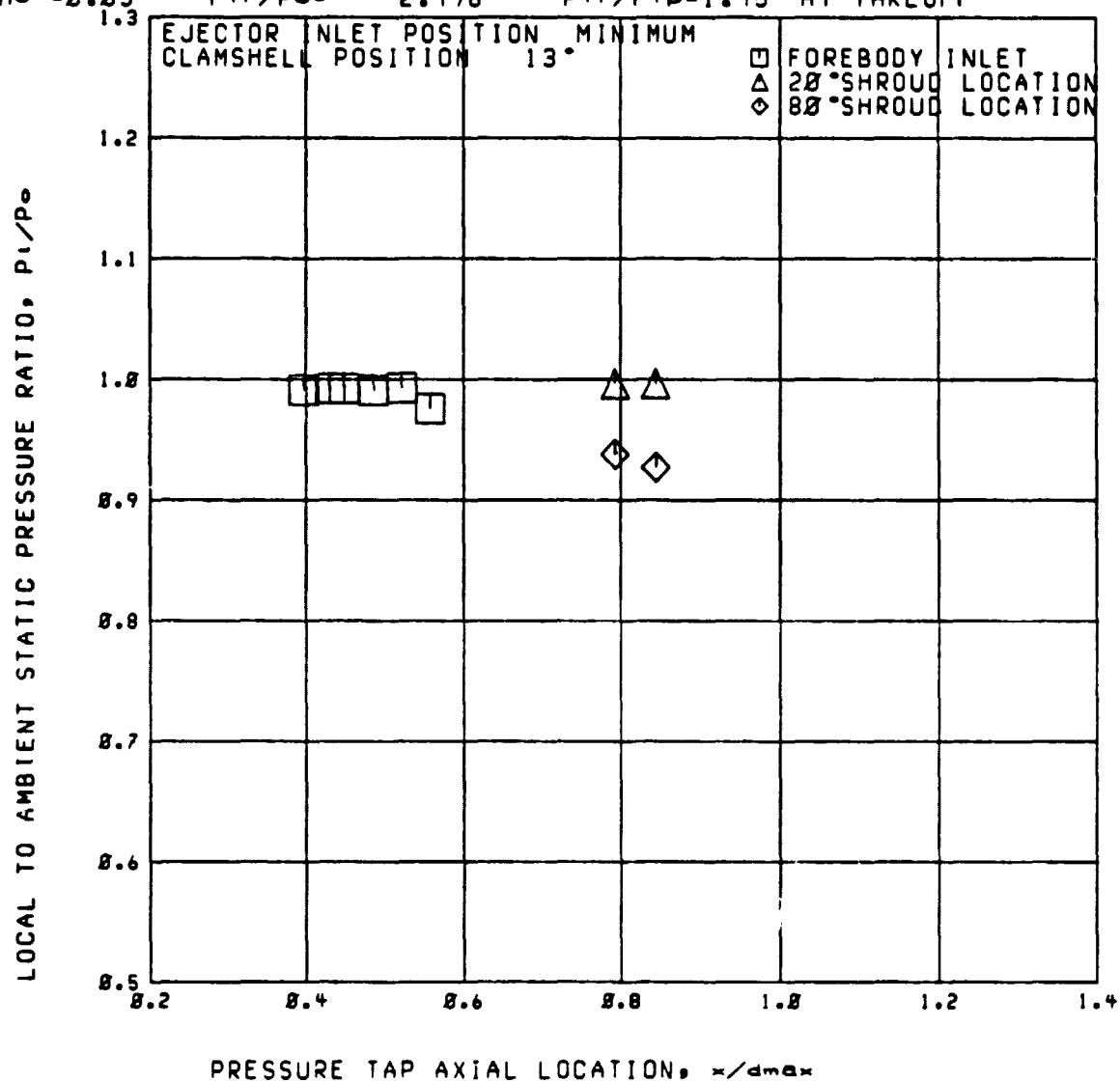
RUN 27

C3

RDG=1613

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.85$   $P_{tr}/P_0 = 2.498$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



RUN 27

C3

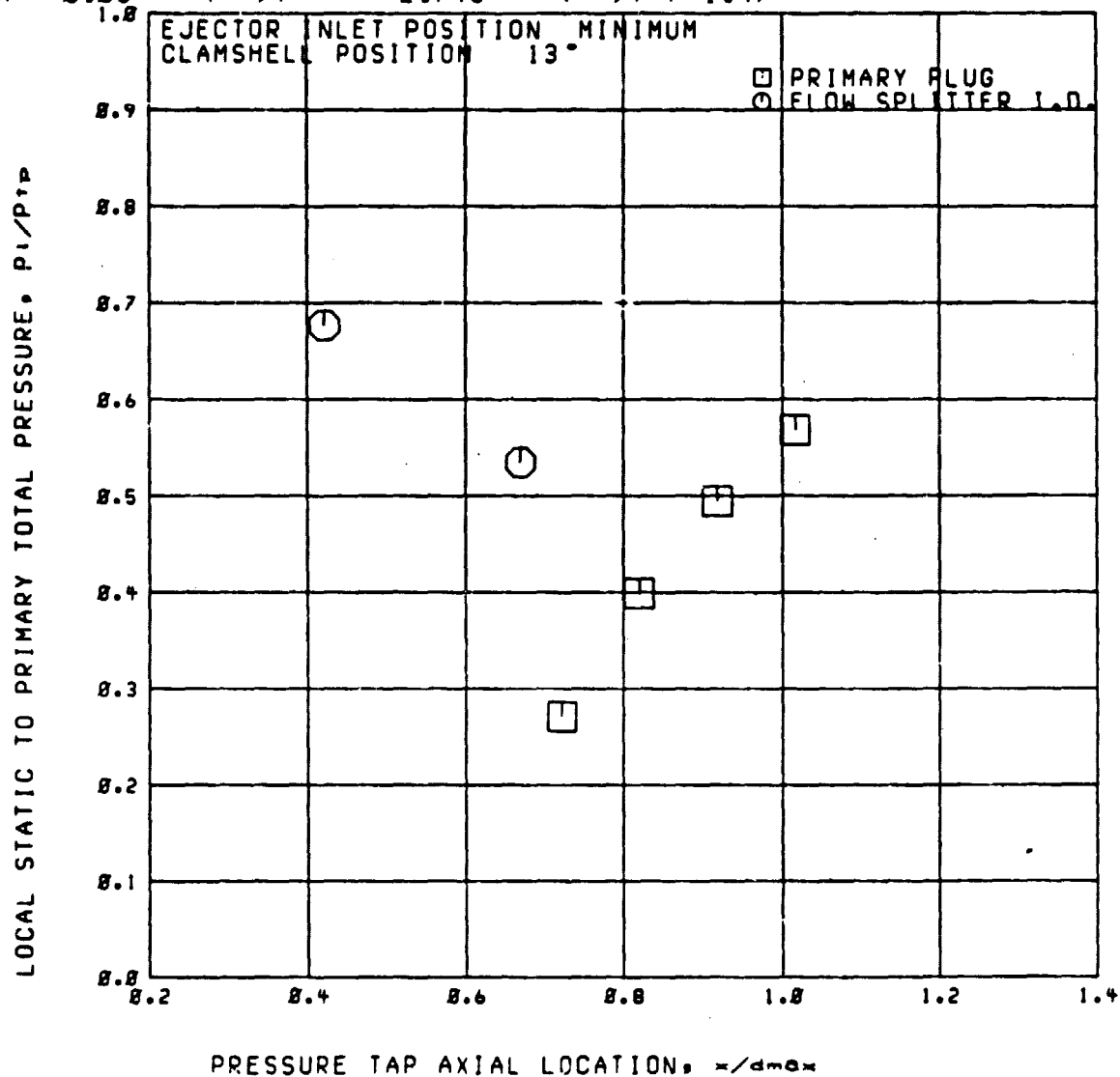
RDG=1014

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$

$P_{tr}/P_{0e} = 2.746$

$P_{tr}/P_{tp} = 1.47$



Run 27

C3

RDG=1614

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.85$

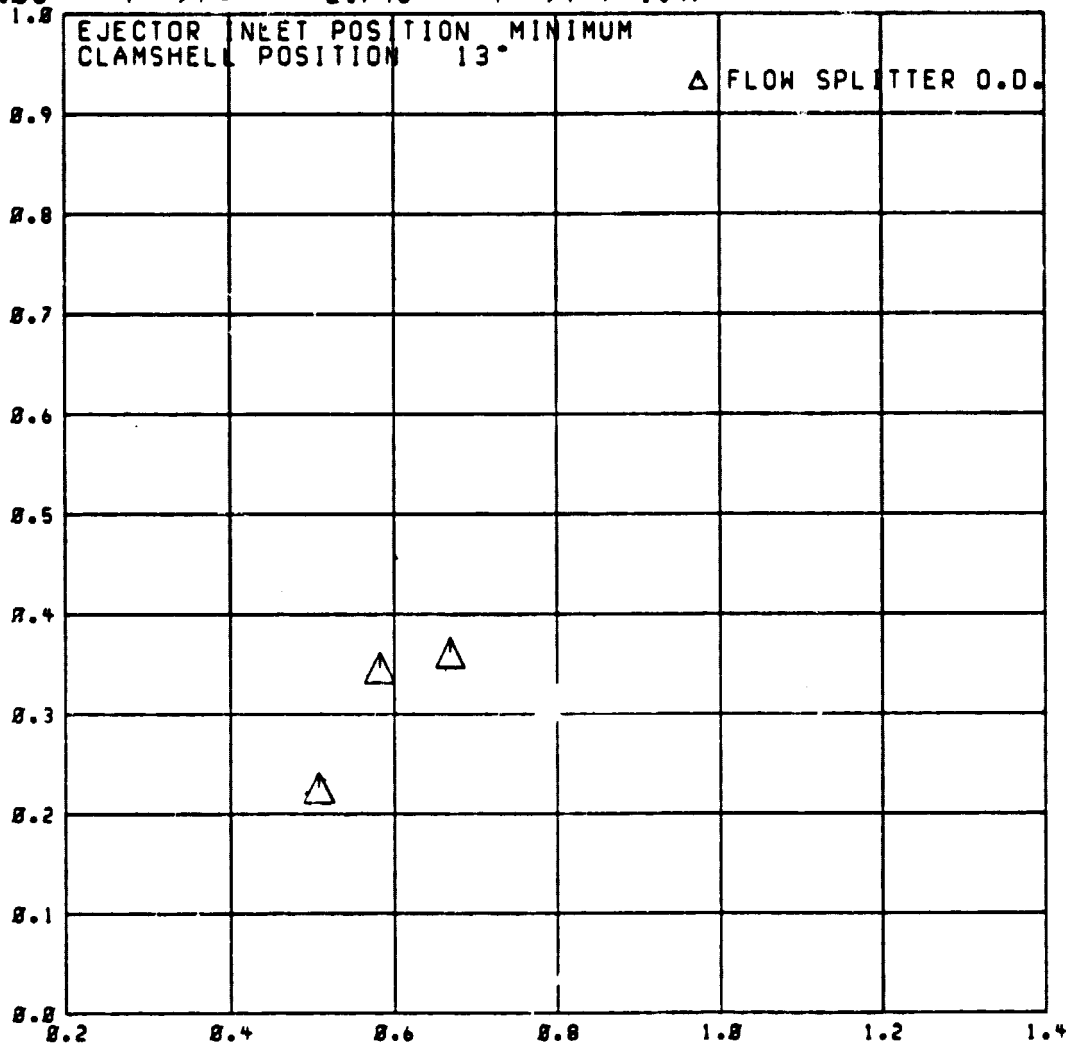
$P_{tr}/P_0 =$

2.746

$P_{tr}/P_{tr} =$

1.47

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_t/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

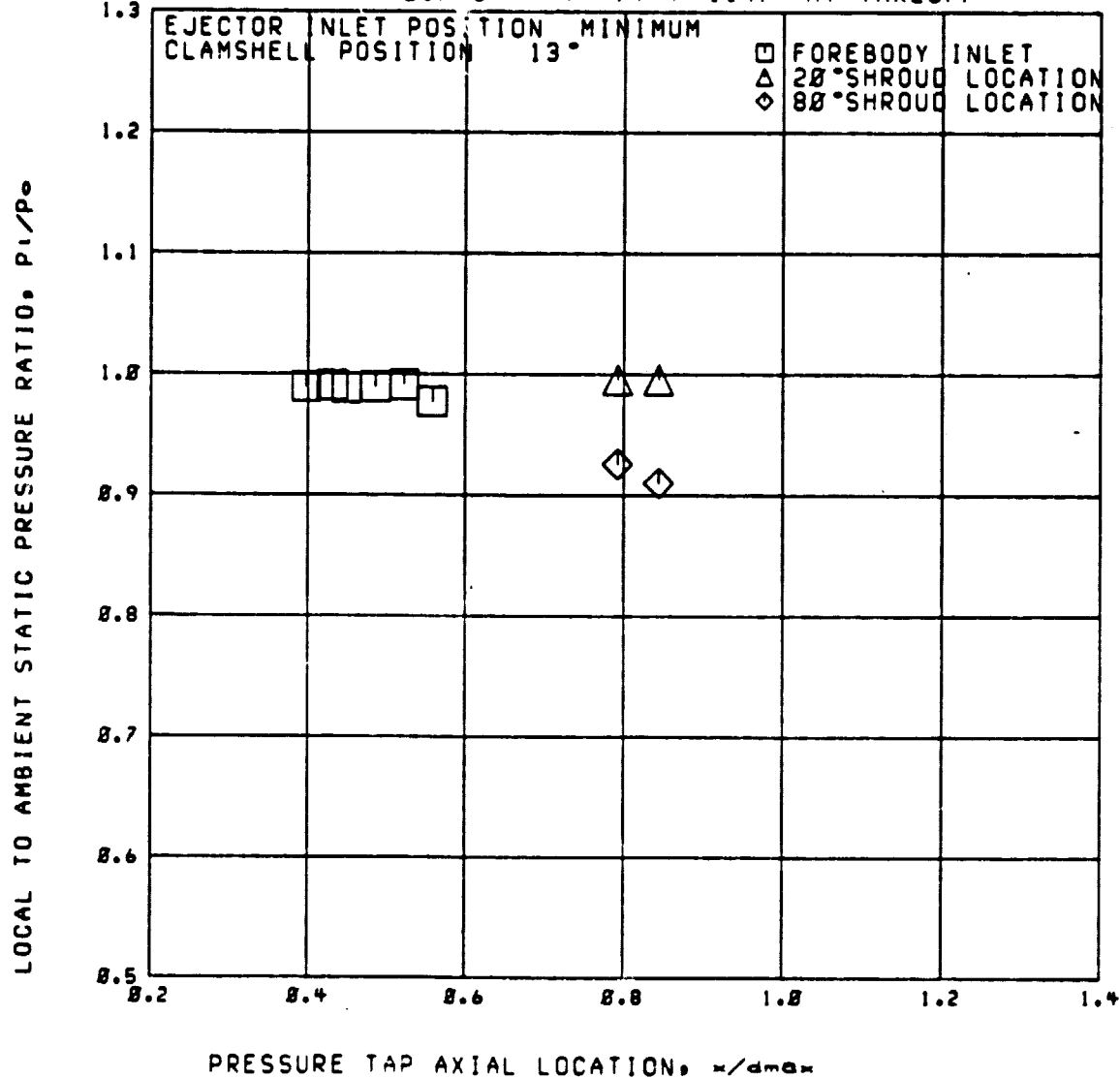
RUN 27

RDG=1614

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M = 0.85$   $P_{1C}/P_0 = 2.76$   $P_{1C}/P_{1D} = 1.47$  AT TAKEOFF





RUN 27

RDG=1615

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

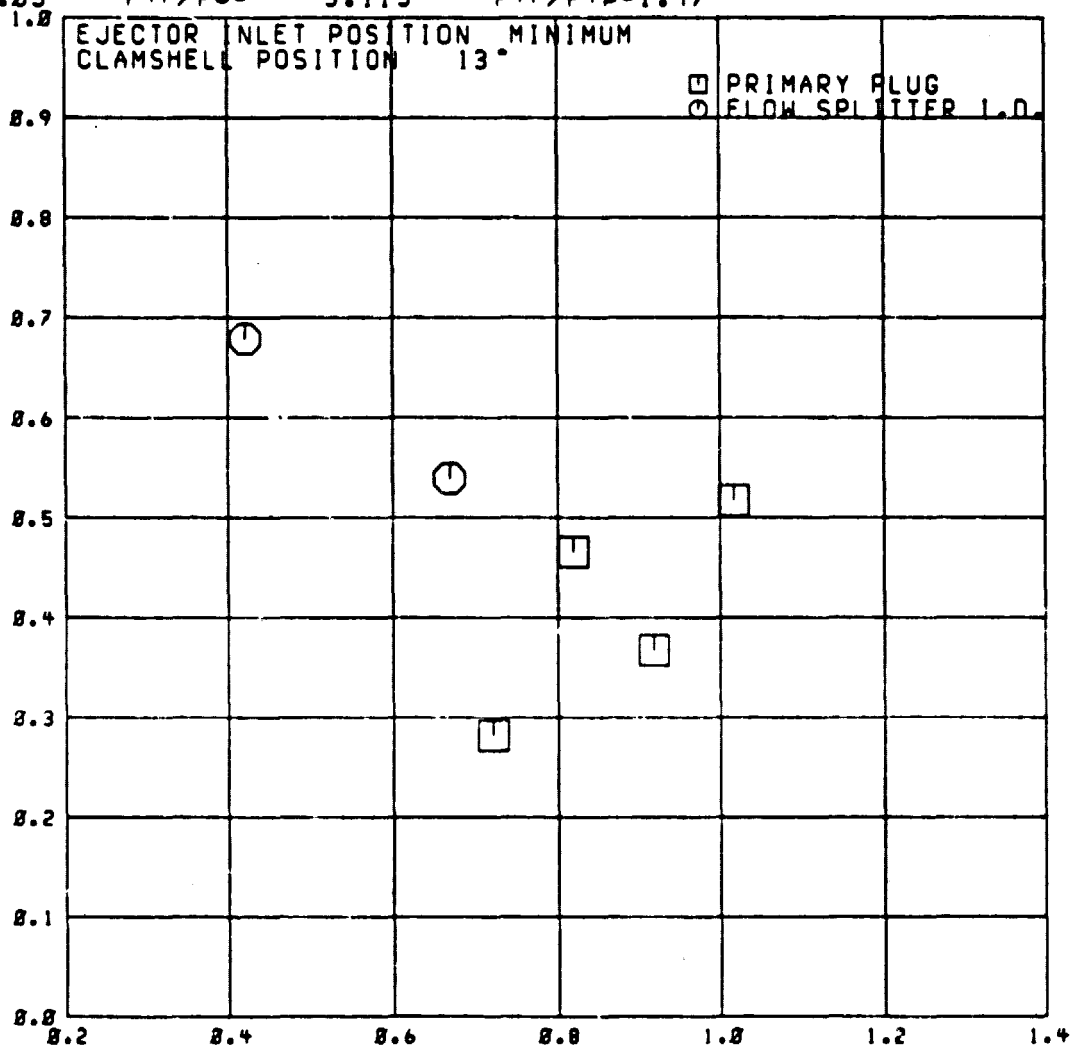
$M_0 = 0.05$

$P_{tr}/P_{02} =$

3.113

$P_{tr}/P_{tp} = 1.47$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_1/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{no}$

Run 27

C3

RDG=1615

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.85$

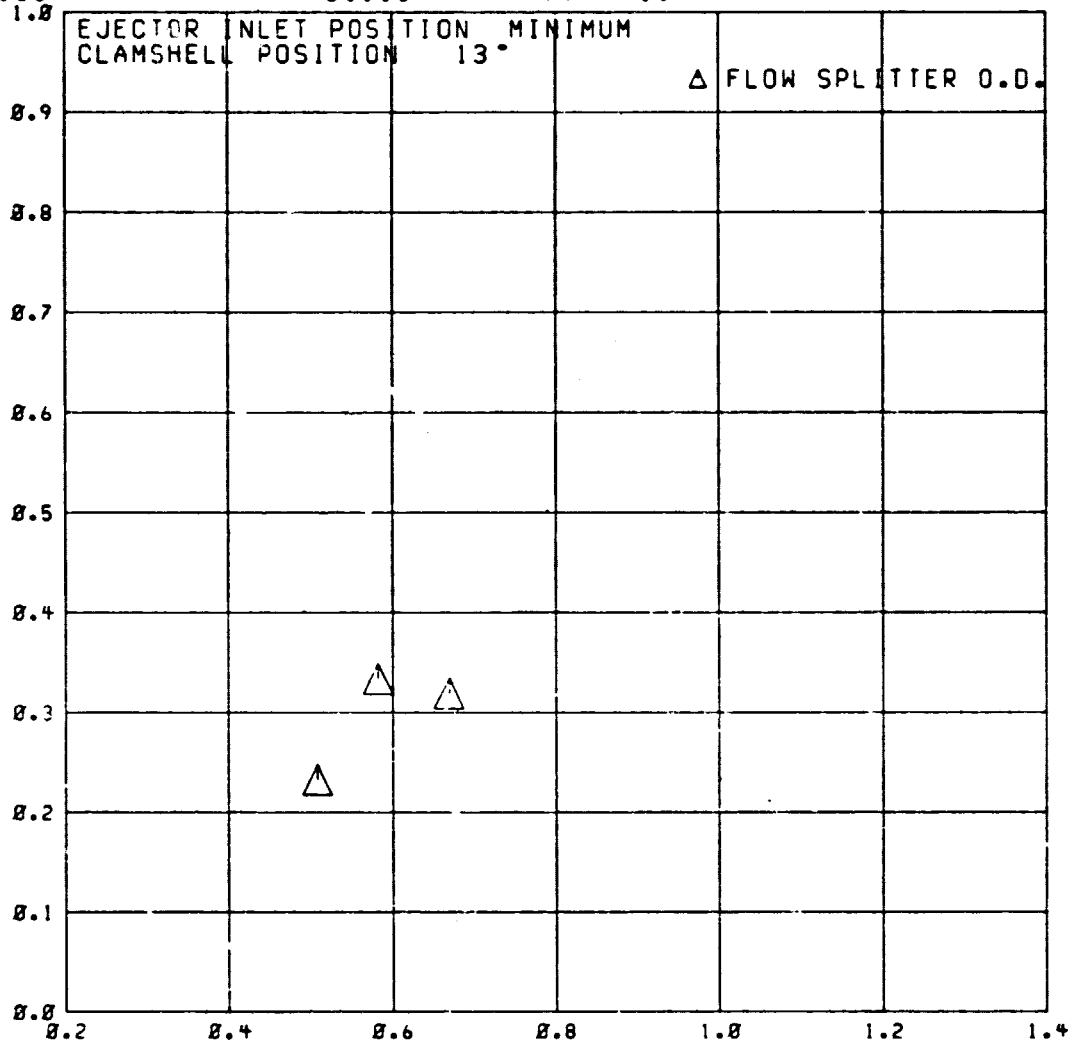
$P_{1c}/P_0 =$

3.113

$P_{1c}/P_{1p} =$

1.47

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_1/P_{1c}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

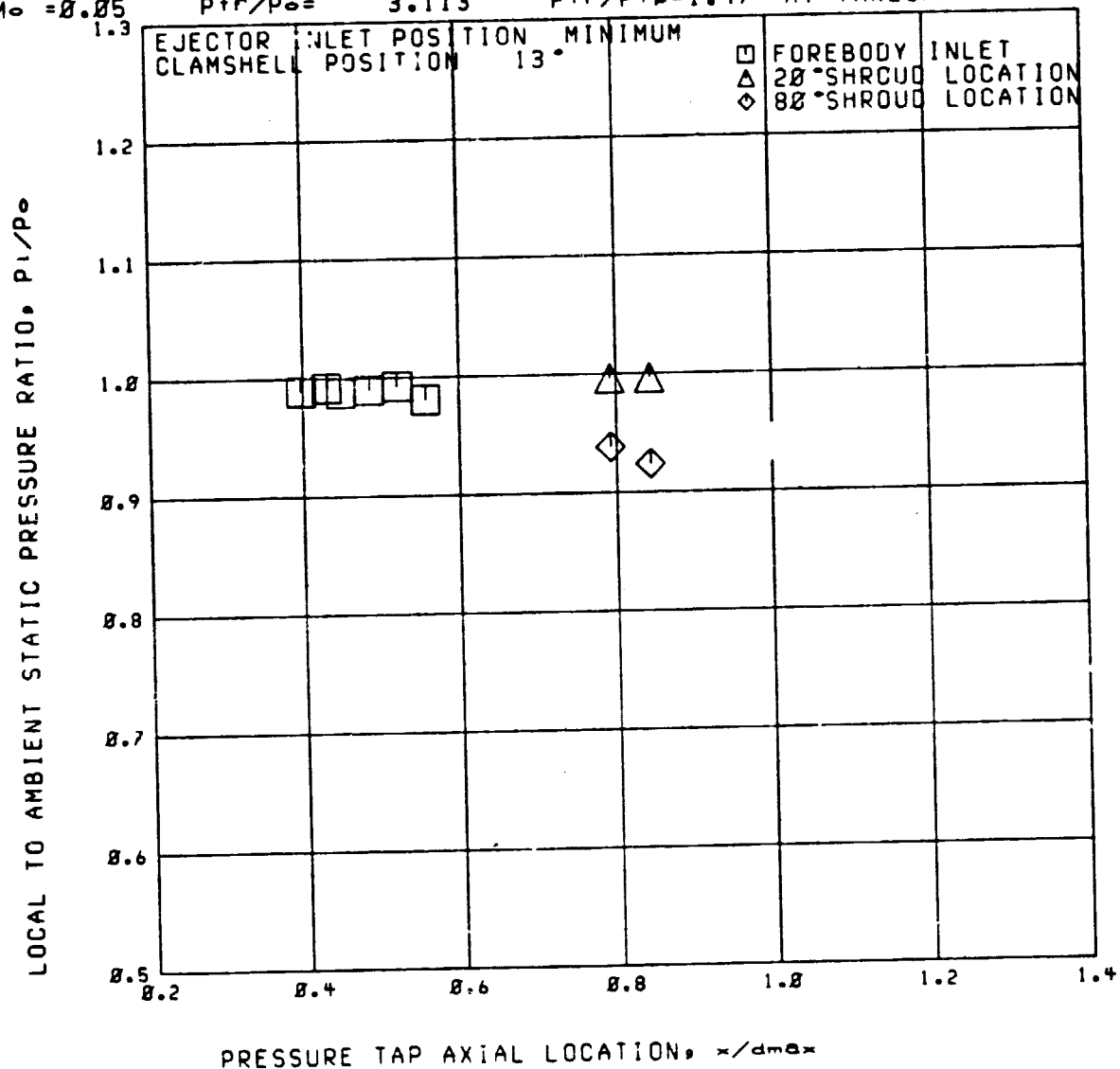
RUN 27

RDG=1615

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.05$      $P_{tr}/P_o = 3.113$      $P_{tr}/P_{tr} = 1.47$  AT TAKEOFF



RUN 27

C3

RDG=1616

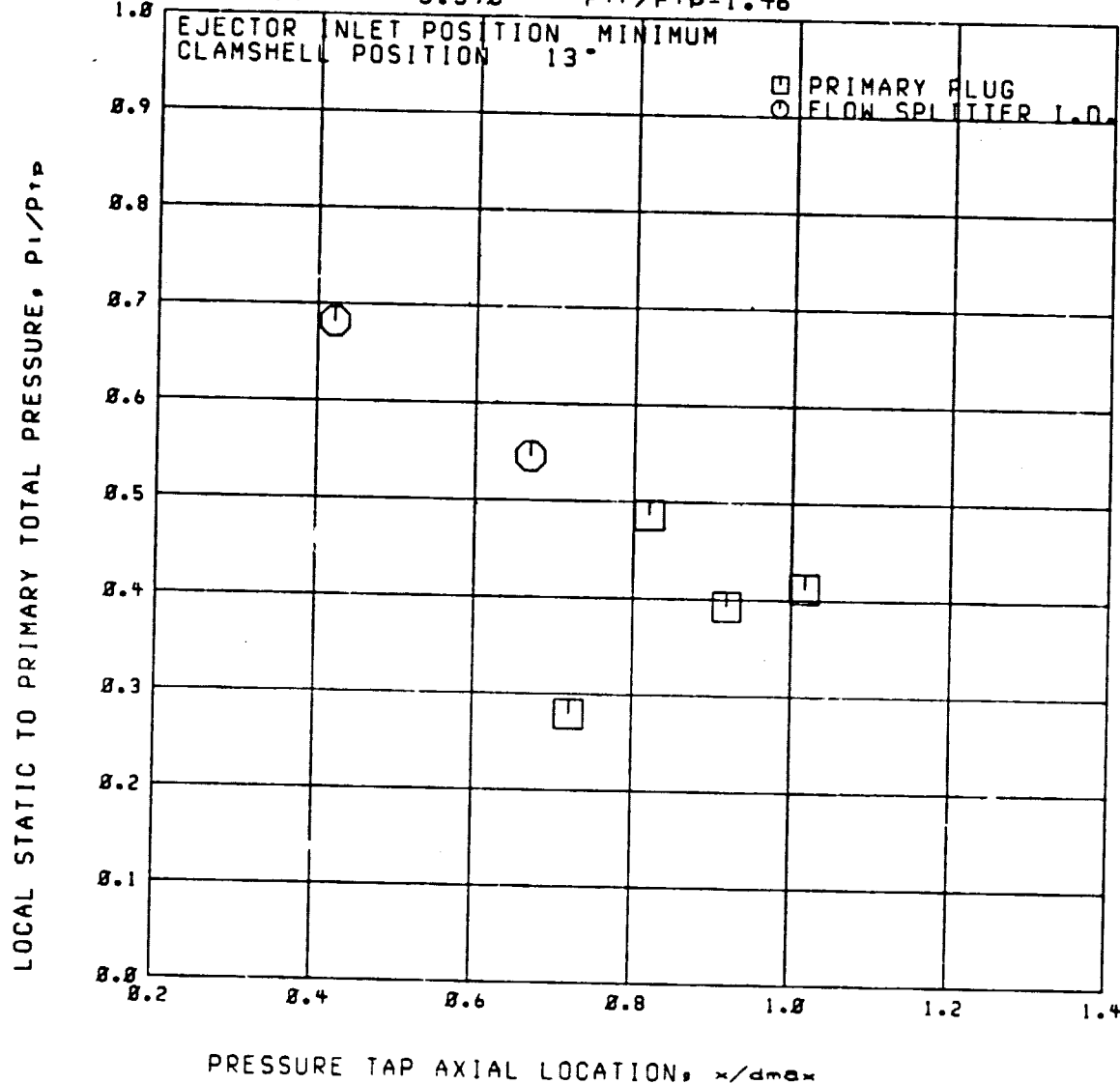
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.05$

$P_{ir}/P_o =$

3.598

$P_{ir}/P_{ip} = 1.46$



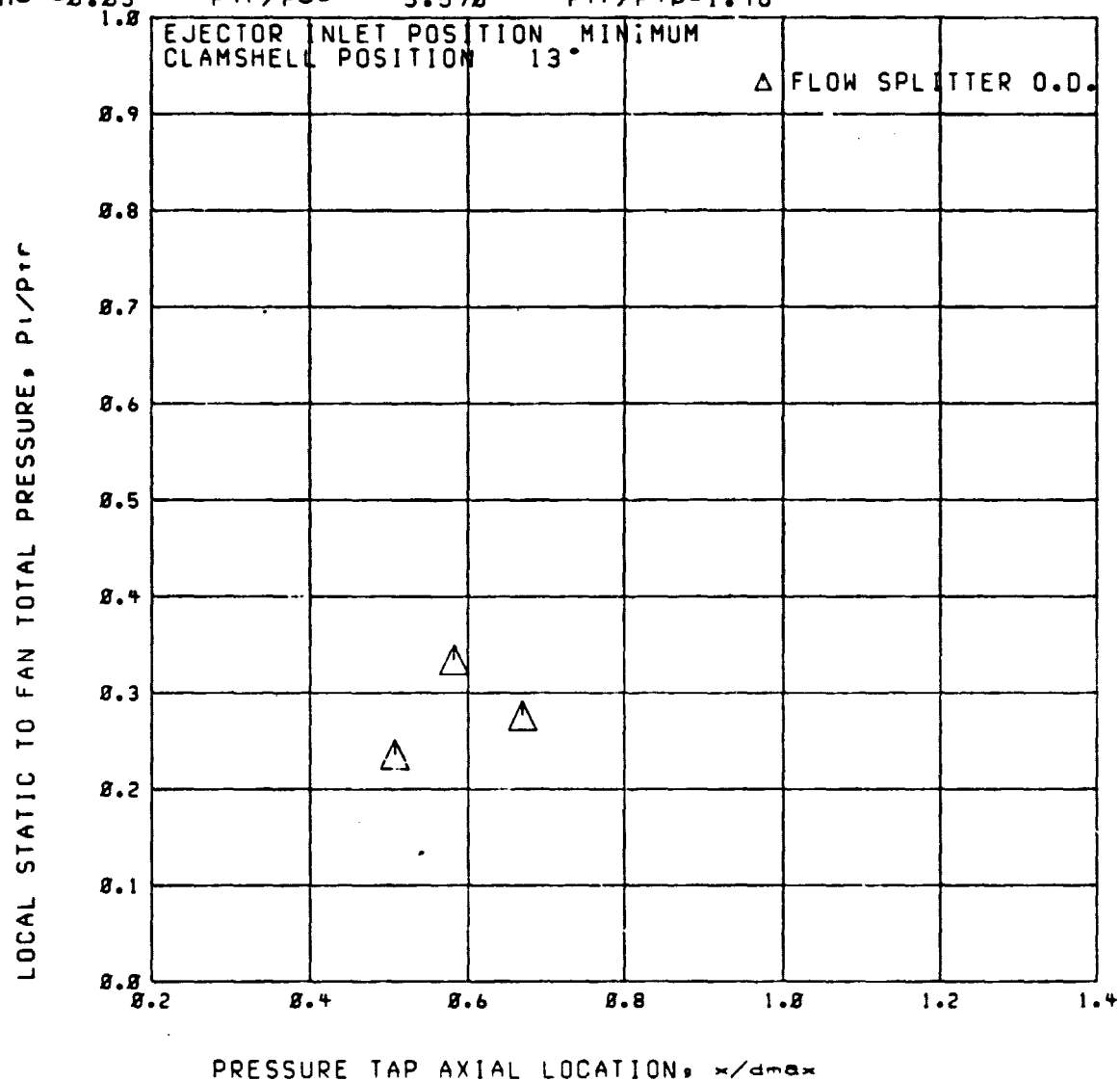
Run 27

RDG=1616

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.85$   $P_{tr}/P_0 = 3.598$   $P_{tr}/P_{tp} = 1.46$



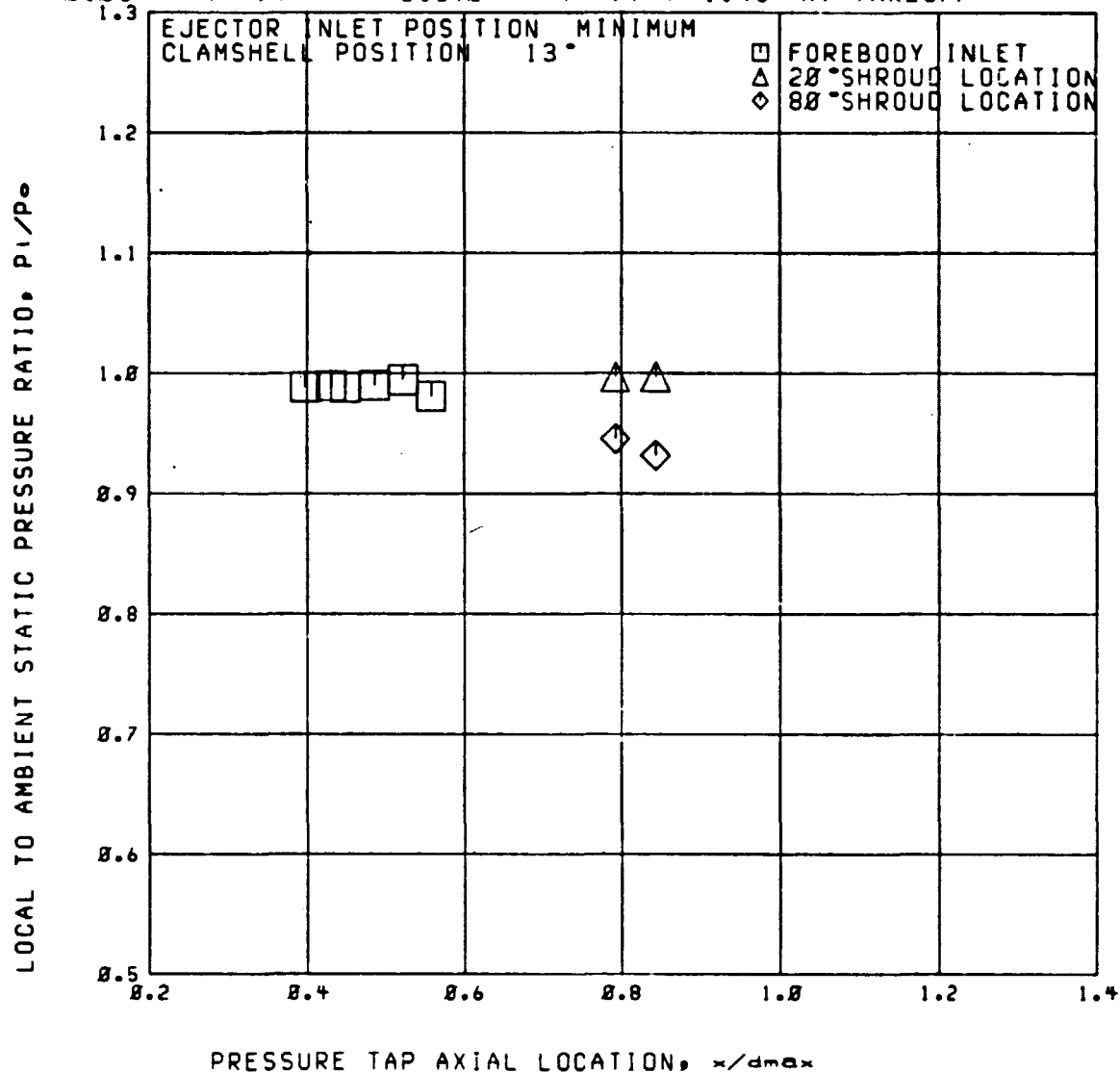
Run 27

RDG=1616

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.05$   $P_{tr}/P_0 = 3.590$   $P_{tr}/P_{tp} = 1.46$  AT TAKEOFF



Run 27

RDG=1617

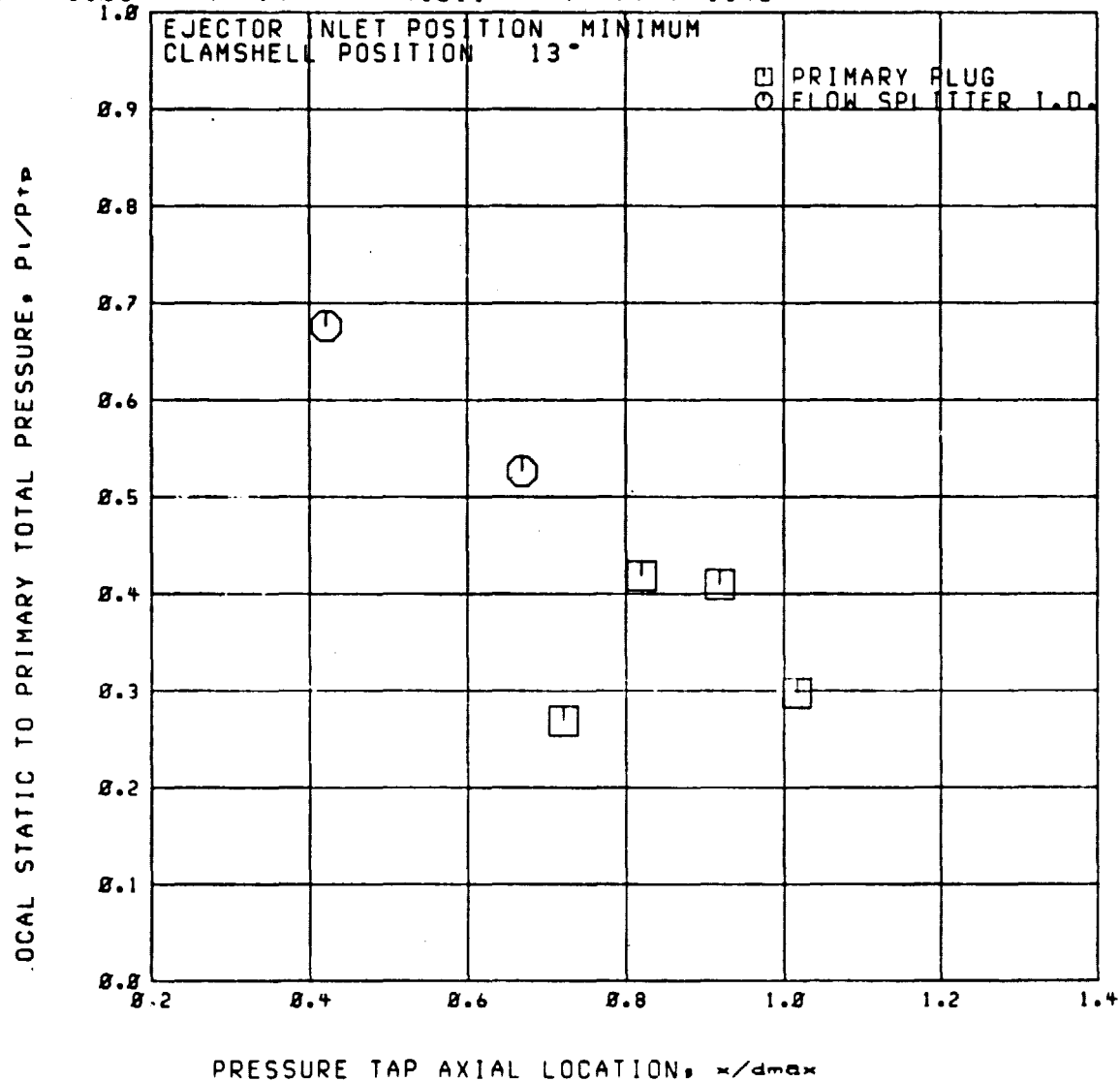
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.06$

$P_{tr}/P_o = 4.011$

$P_{tr}/P_{tp} = 1.46$



Run 27

RDG=1617

C3

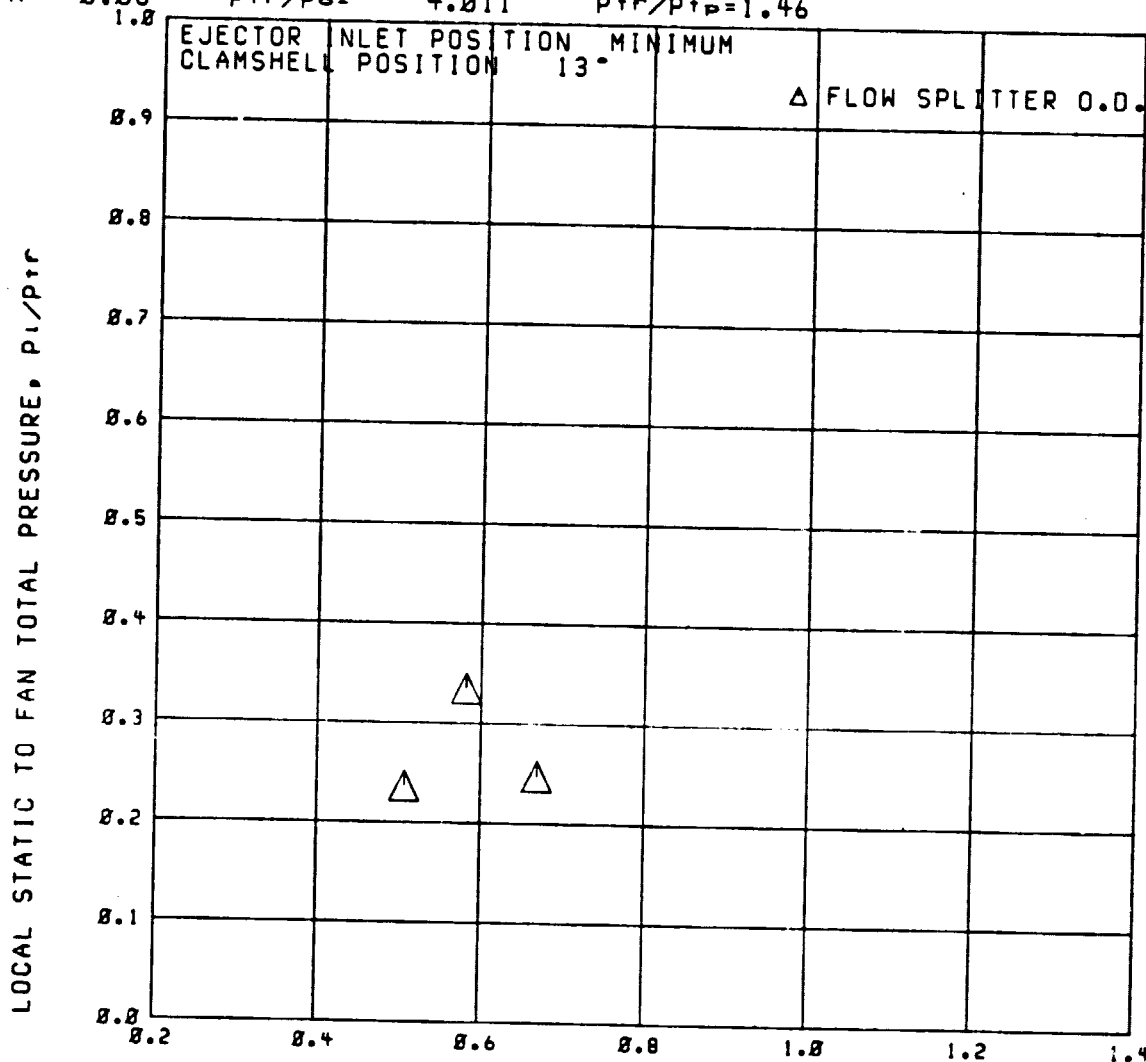
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.06$

$P_{tr}/P_o =$

4.011

$P_{tr}/P_{tr} = 1.46$





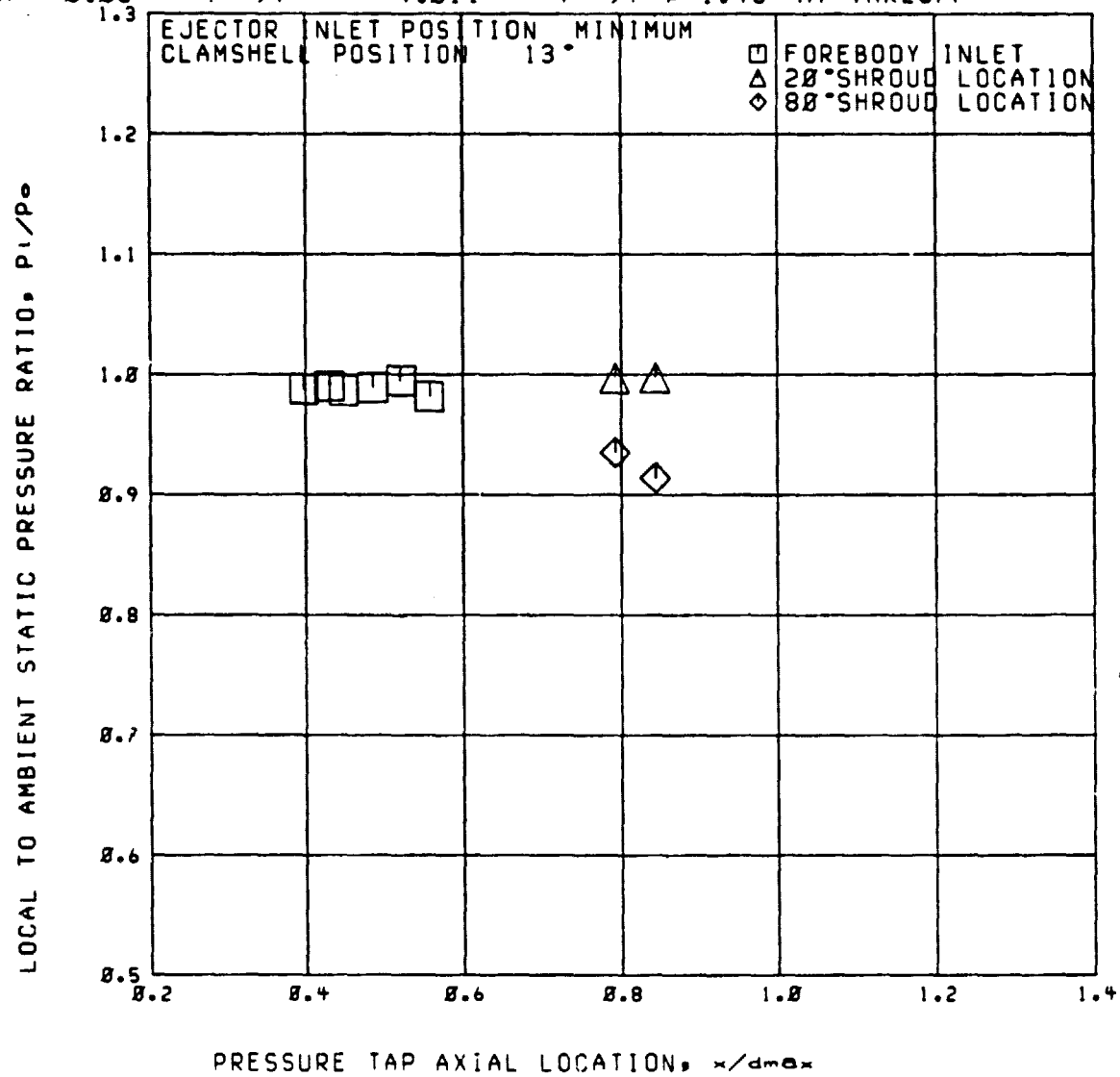
RUN 27

C3

RDG=1617

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.86$      $P_{tr}/P_o = 4.811$      $P_{tr}/P_{tp} = 1.46$  AT TAKEOFF



RUN 27

C3

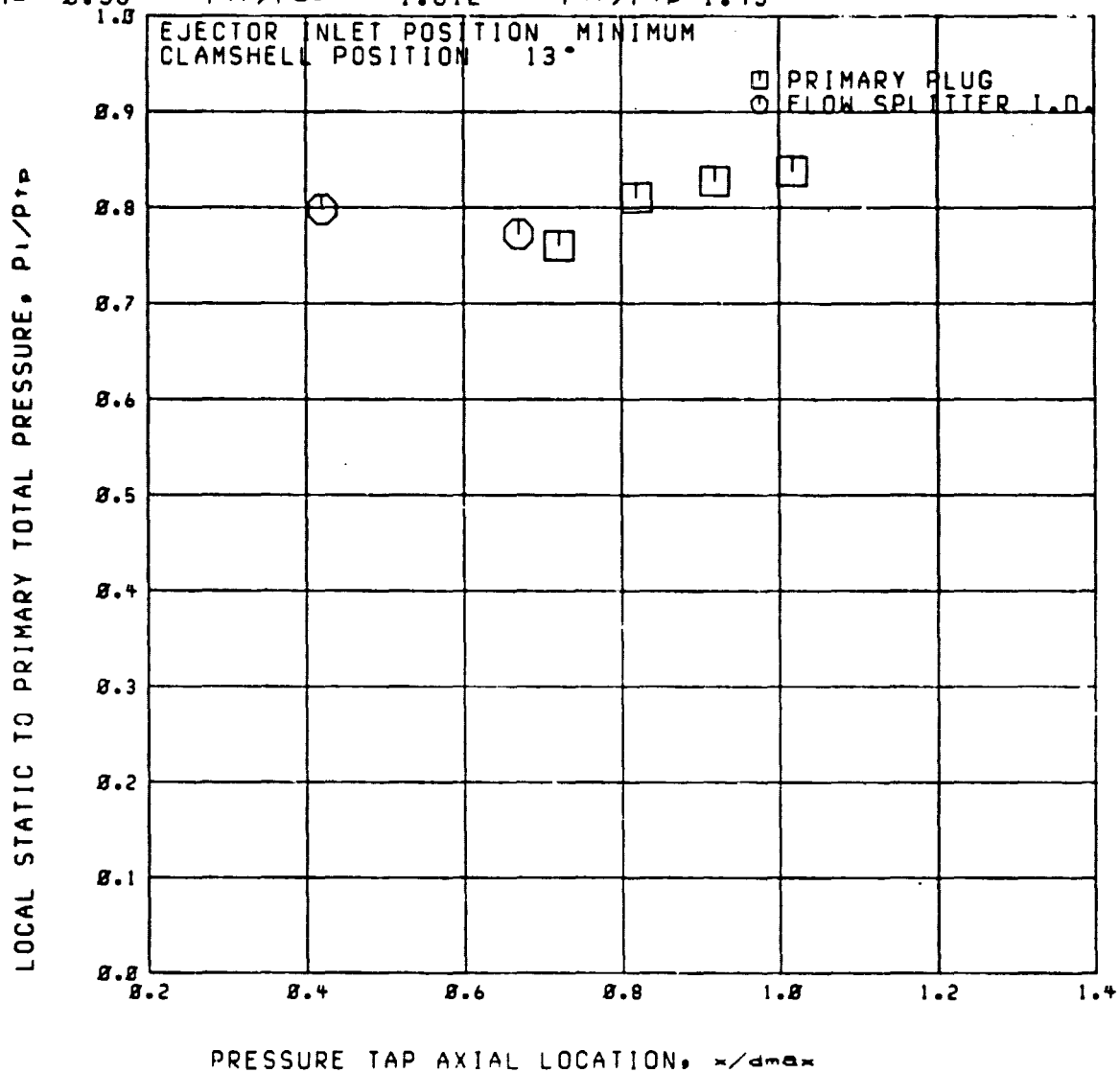
RDG=1642

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 = 1.812$

$P_{tr}/P_{tp} = 1.45$



RUN 27

RDG=1642

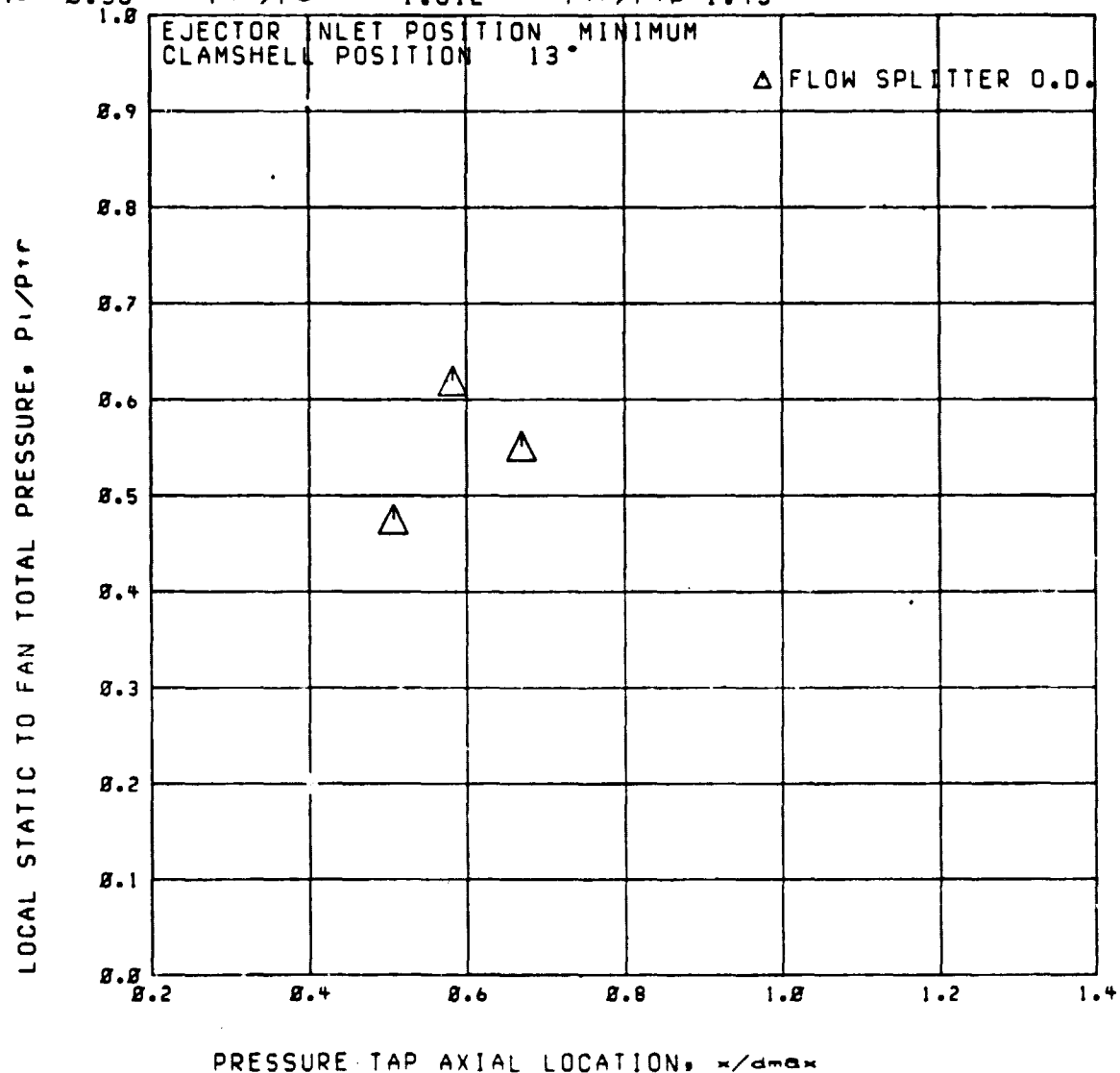
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 = 1.812$

$P_{tr}/P_{tp} = 1.45$



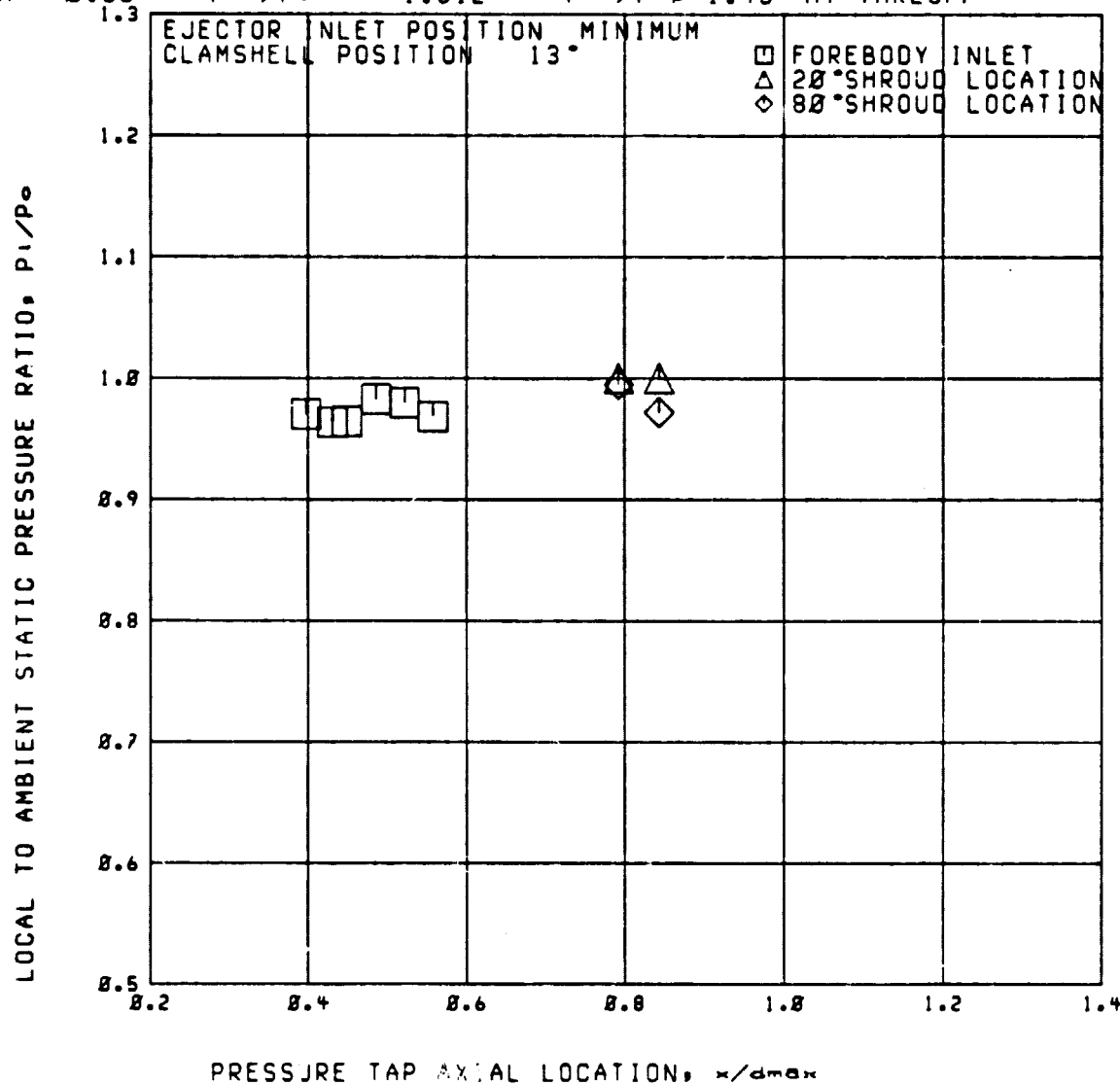
Run 27

C3

RDG=1642

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 1.812$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



RUN 27

RDG=1643

C3

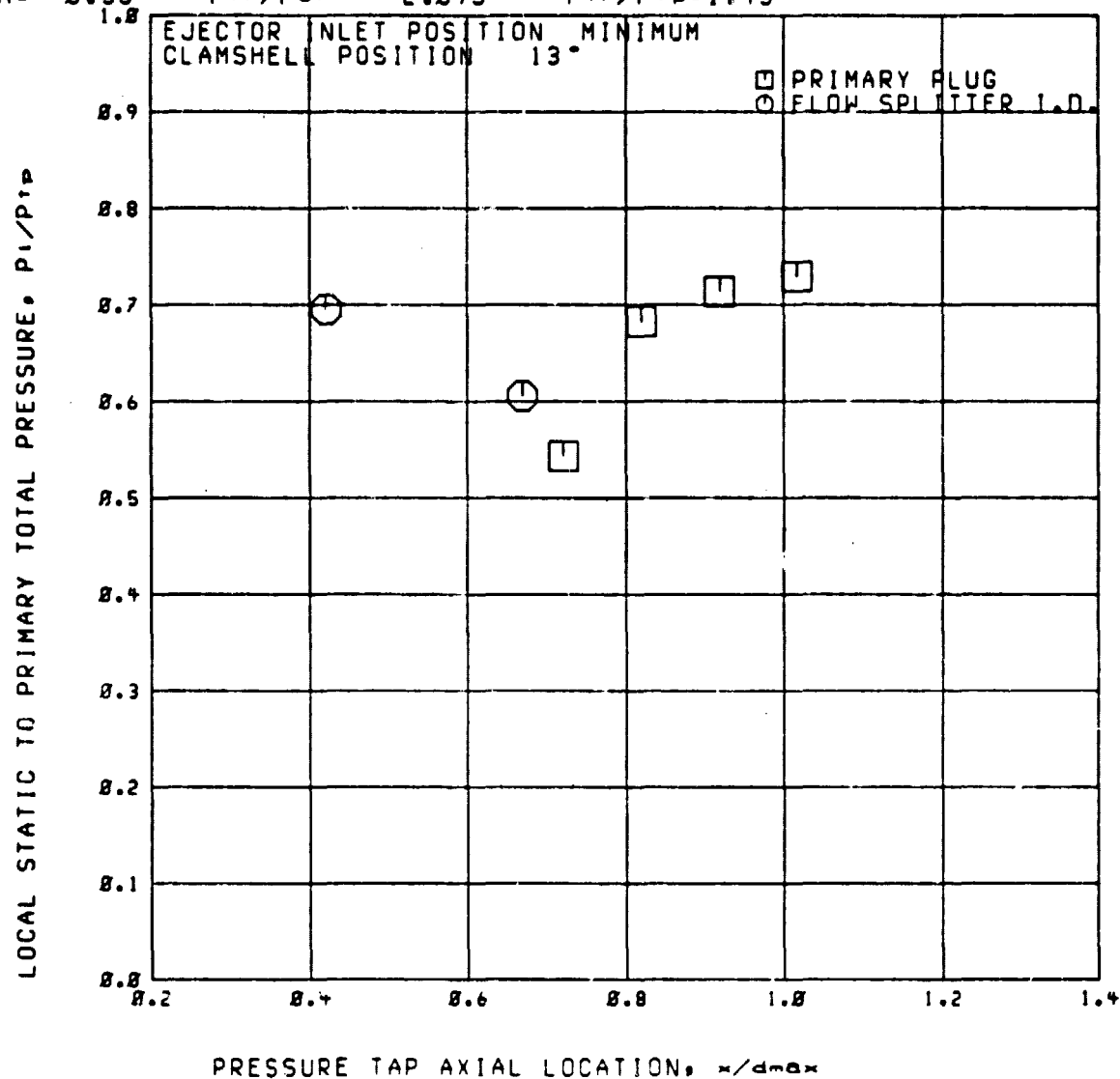
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{10}/P_0 =$

2.093

$P_{10}/P_{10} = 1.43$



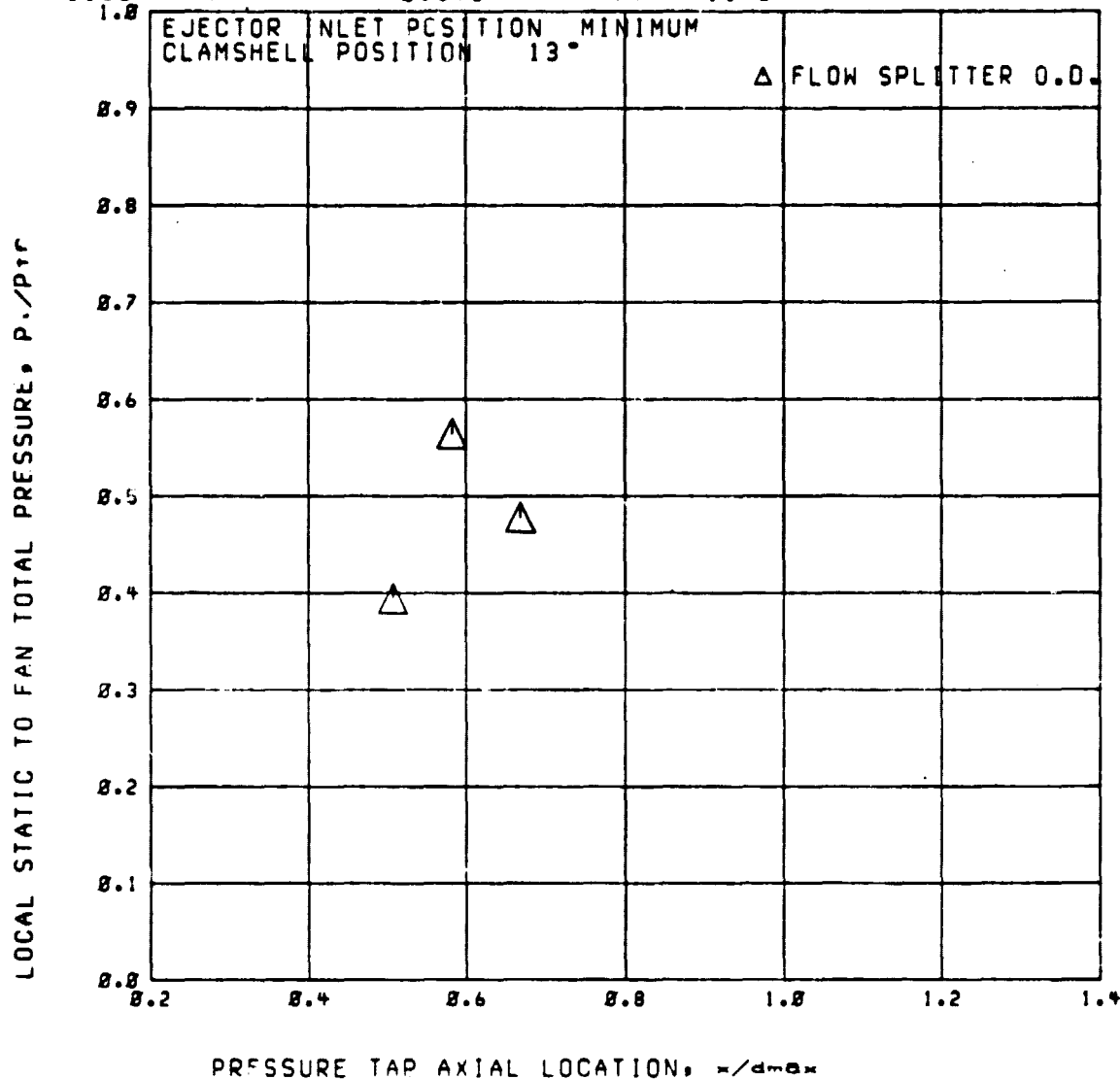
Run 27

RDC=1643

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$   $P_{tr}/P_o = 2.093$   $P_{tr}/P_{tp} = 1.43$



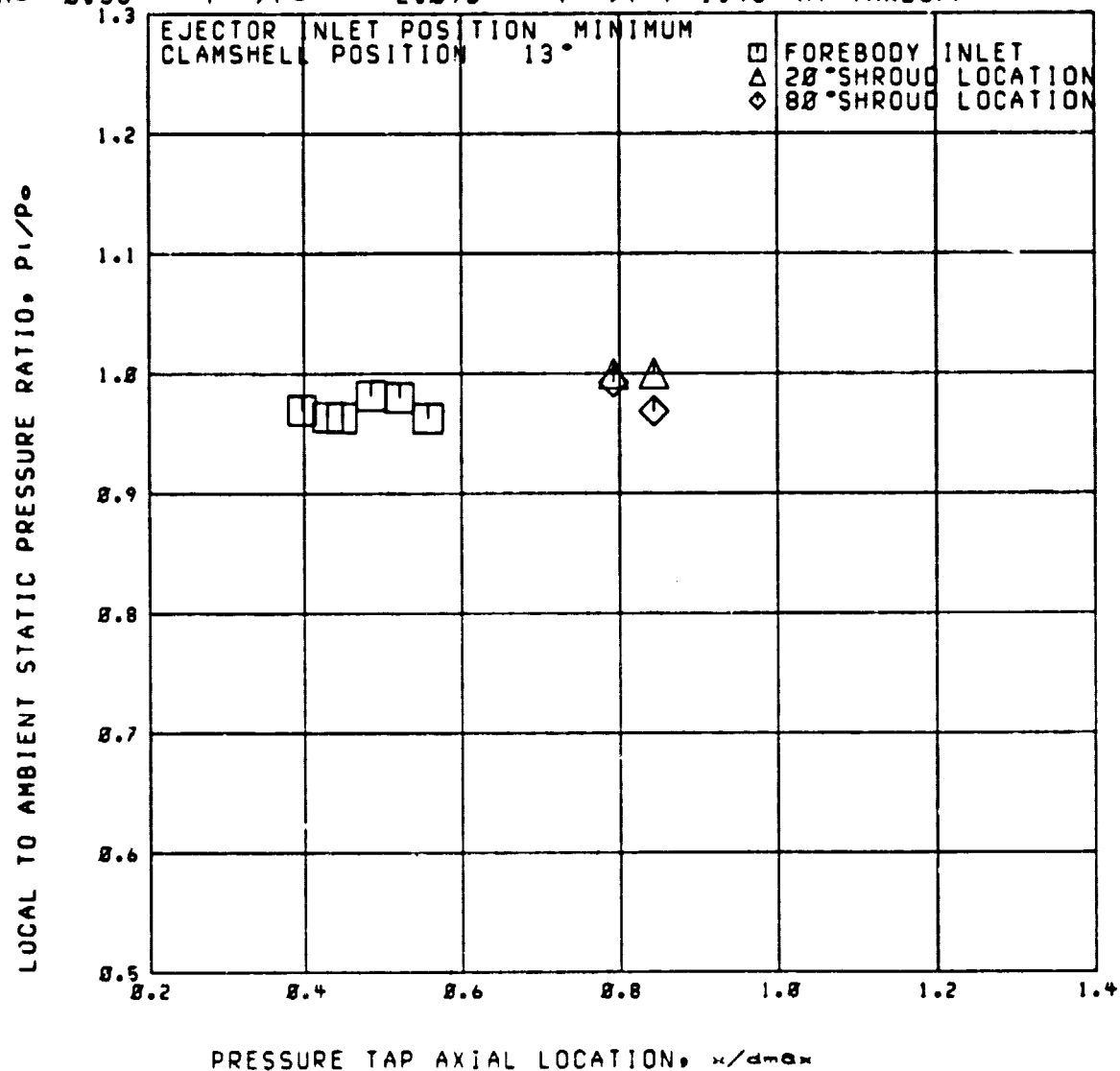
RUN 27

RDG=1643

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$      $P_{ir}/P_o = 2.093$      $P_{ir}/P_{ip} = 1.43$  AT TAKEOFF



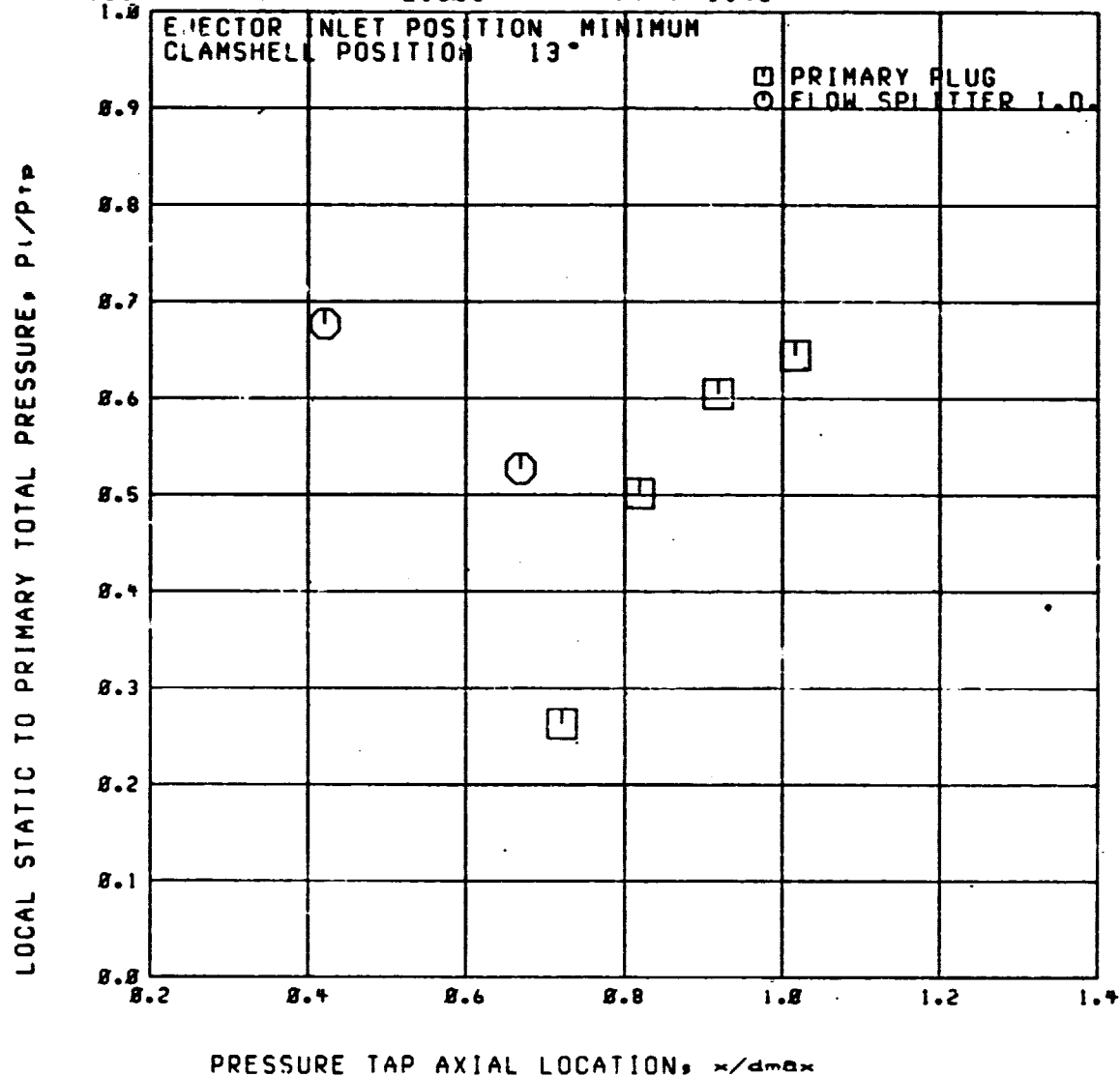
Run 27

C3

RDG=1644

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$   $P_{tr}/P_o = 2.583$   $P_{tr}/P_{tr} = 1.46$



C-3



Run 27

RDG=1644

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

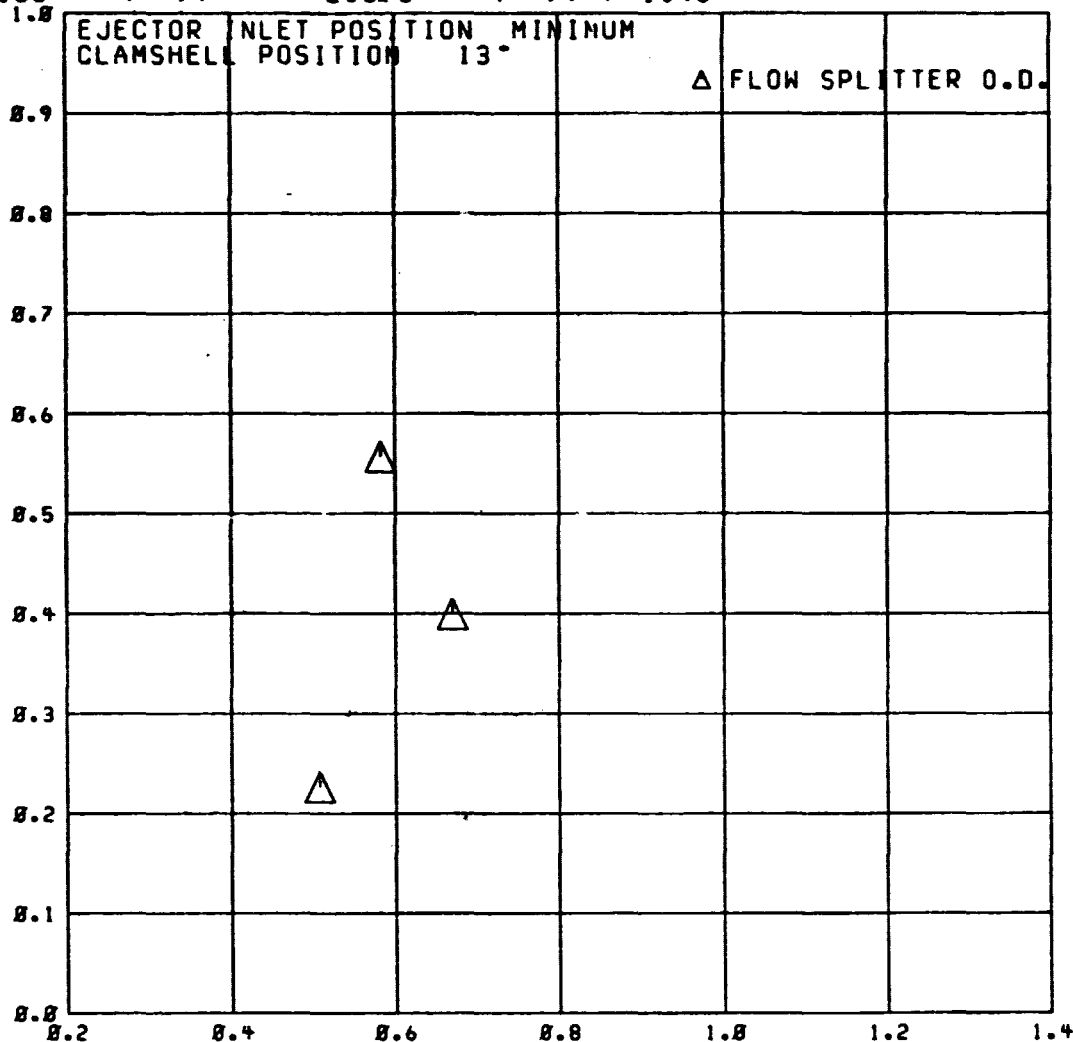
$M_0 = 0.36$

$P_{tr}/P_0 =$

2.573

$P_{tr}/P_{tr0} = 1.46$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

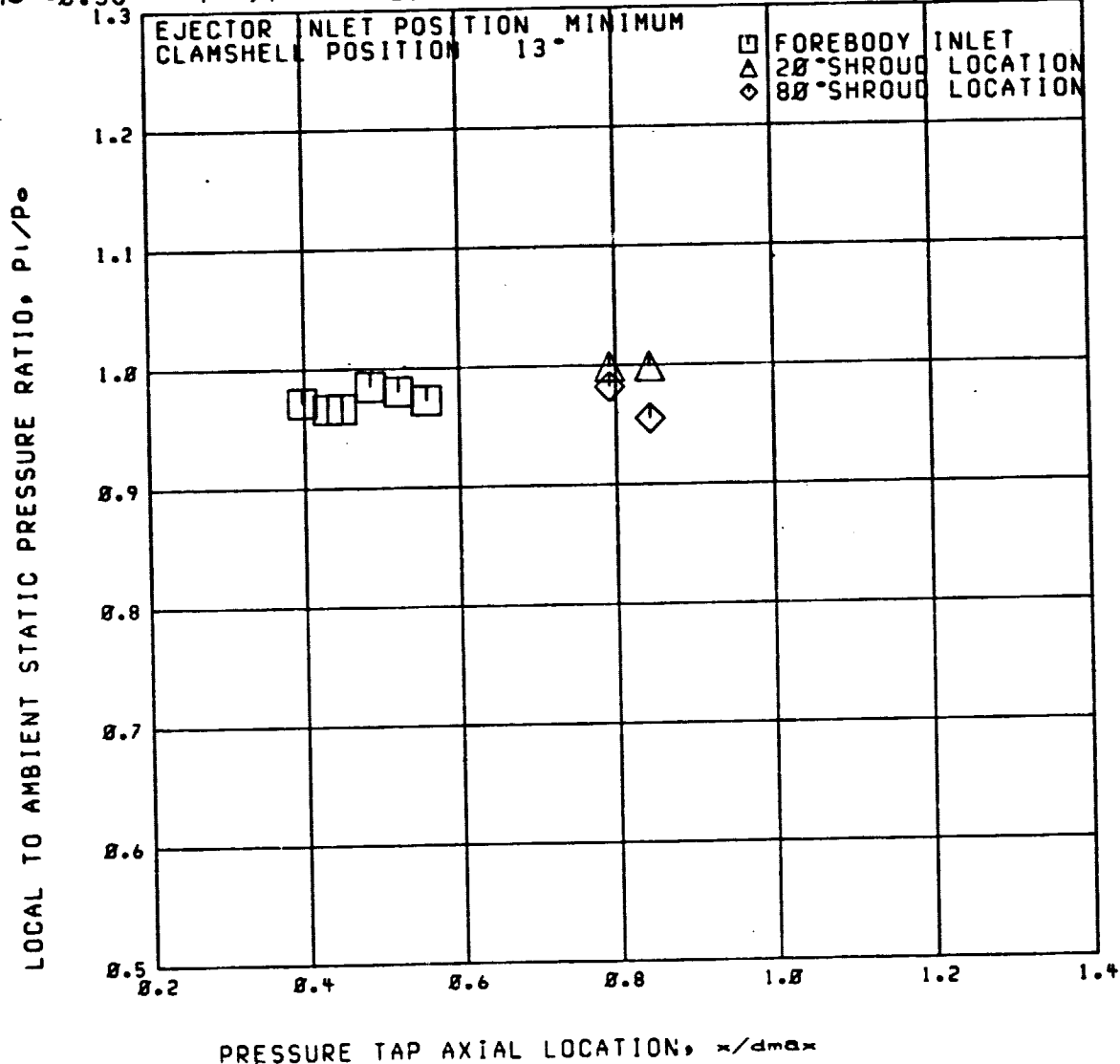
RUN 27

RDG=1644

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 2.503$   $P_{tr}/P_{tr} = 1.46$  AT TAKEOFF



Run 27

RDG=1645

C3

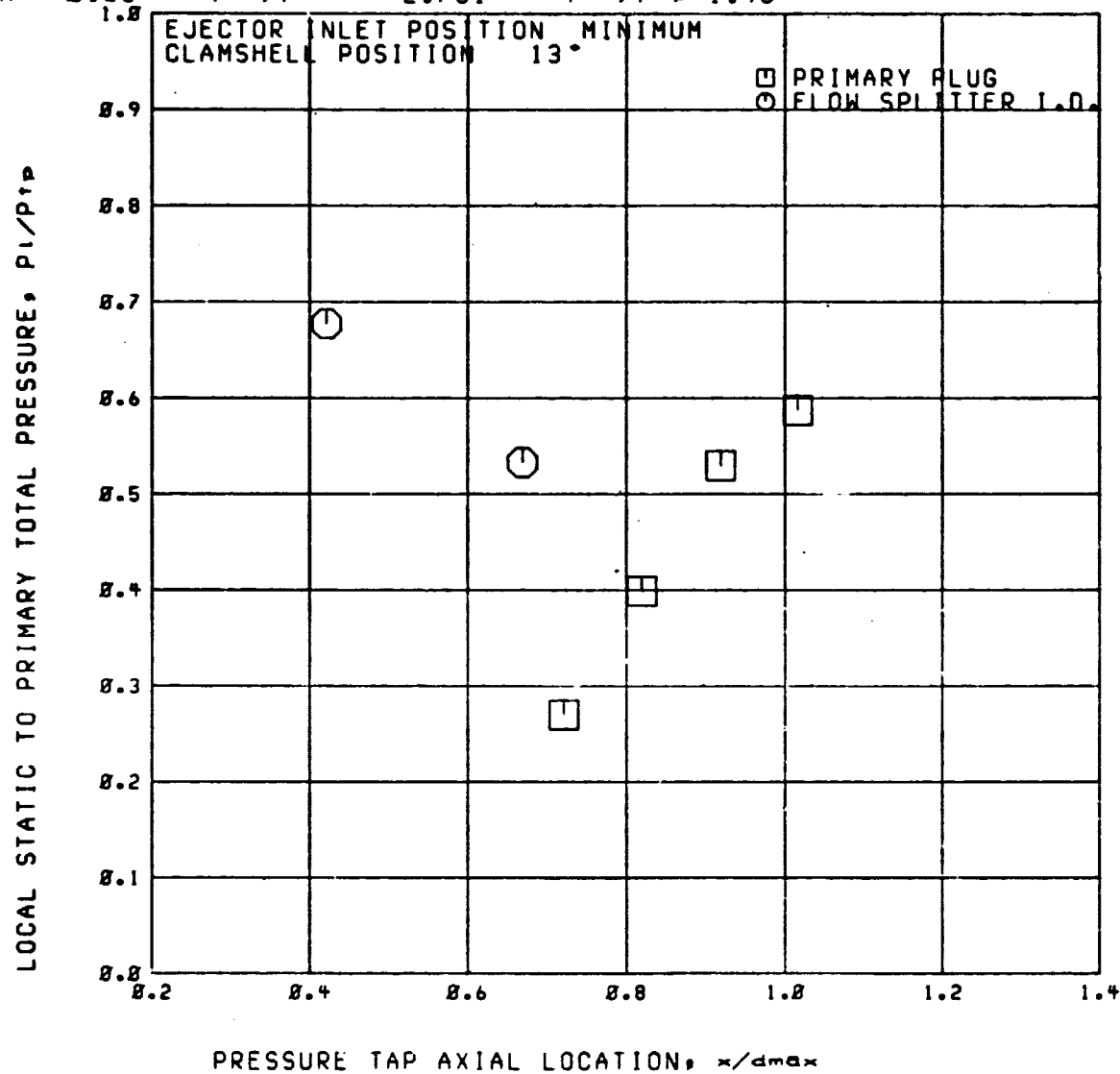
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_{0x} =$

2.761

$P_{tr}/P_{tp} = 1.48$



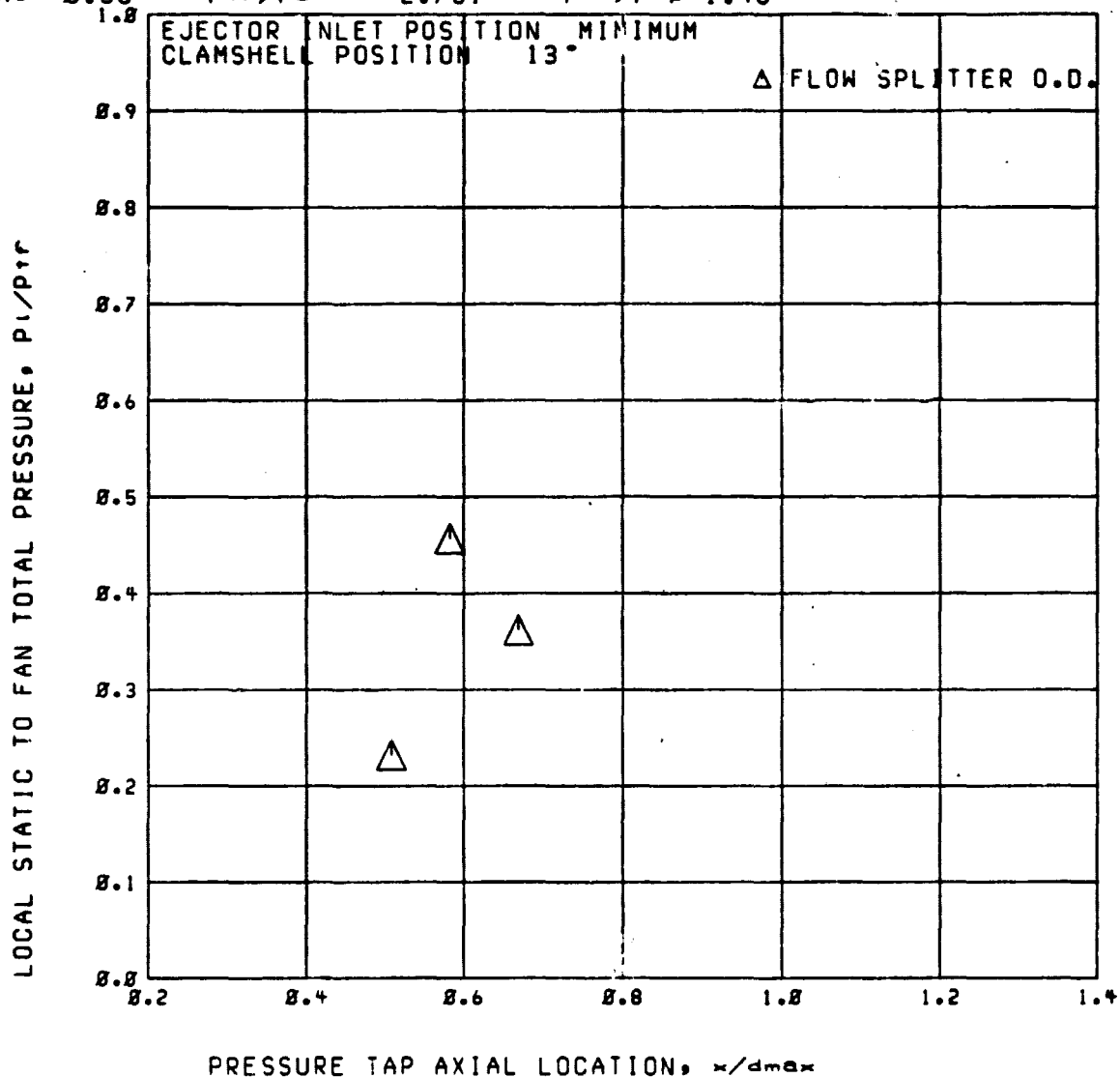
Run 27

C3

RDG=1645

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$   $P_{tr}/P_o = 2.761$   $P_{tr}/P_{tp} = 1.48$



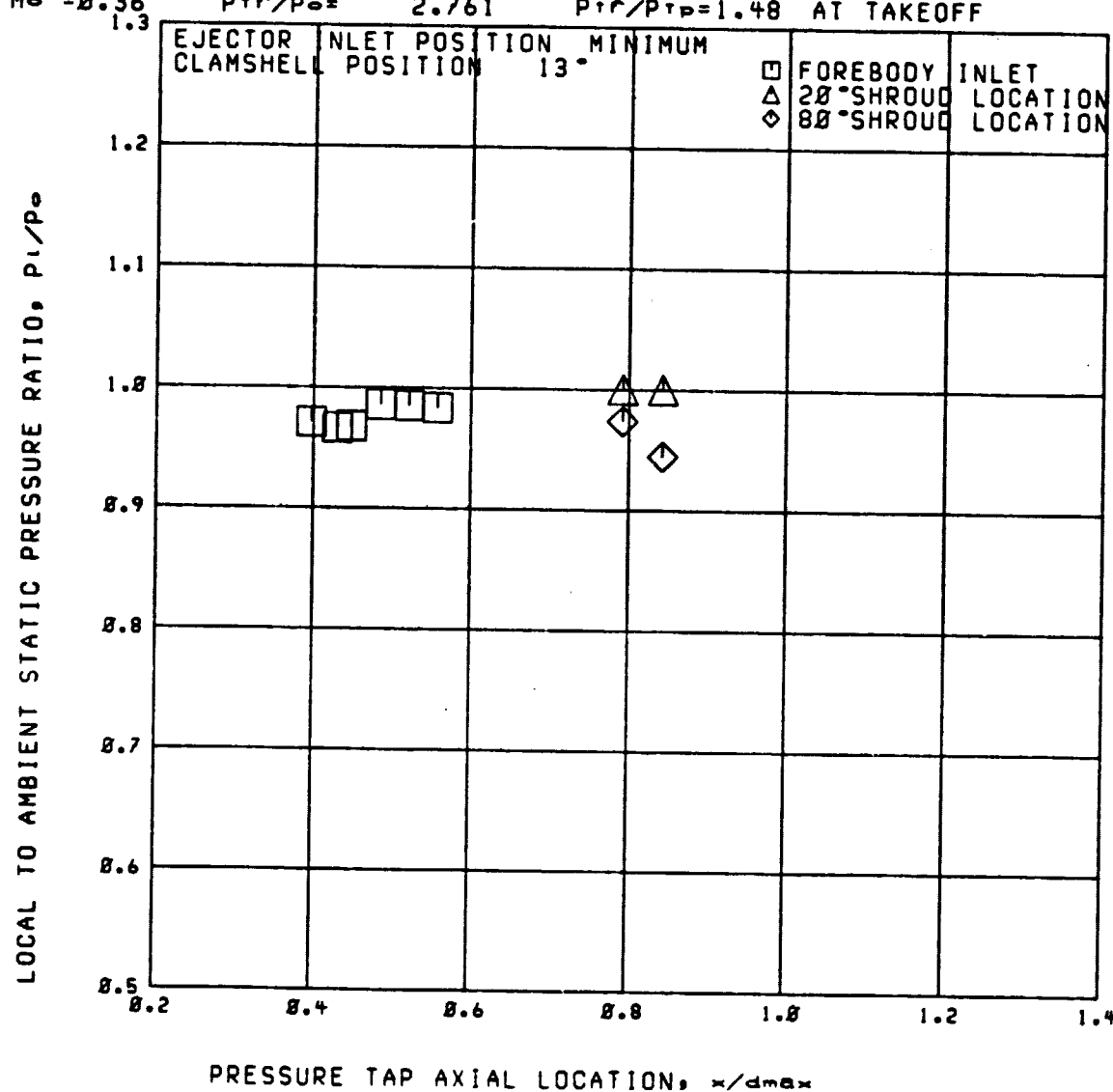
Run 27

C3

RDG=1645

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$   $P_{tr}/P_0 = 2.761$   $P_{tr}/P_{tr} = 1.48$  AT TAKEOFF



RUN 27

RDG=1646

C3

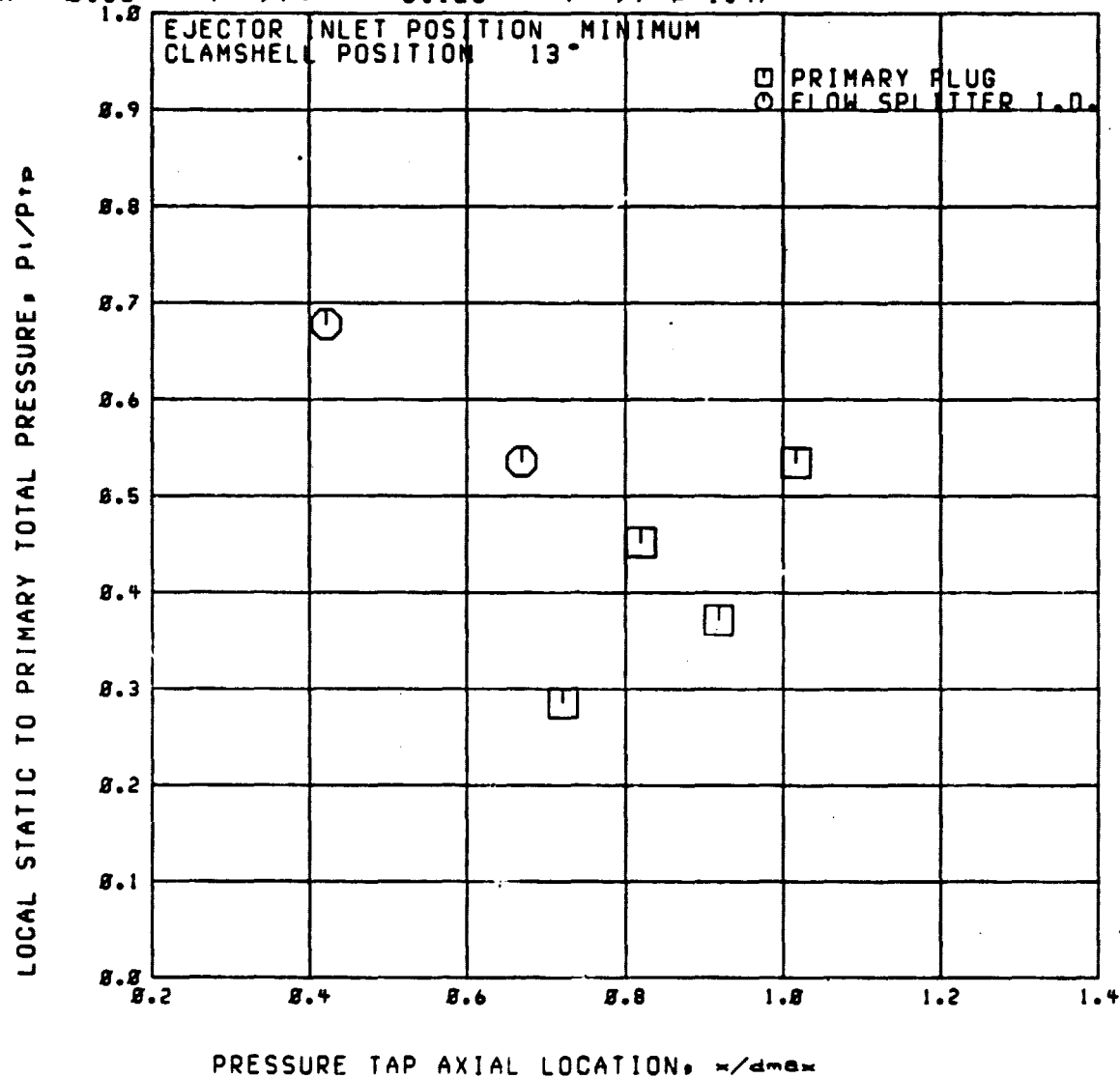
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 =$

3.125

$P_{tr}/P_{tp} = 1.47$



RUN 27

RDG=1646

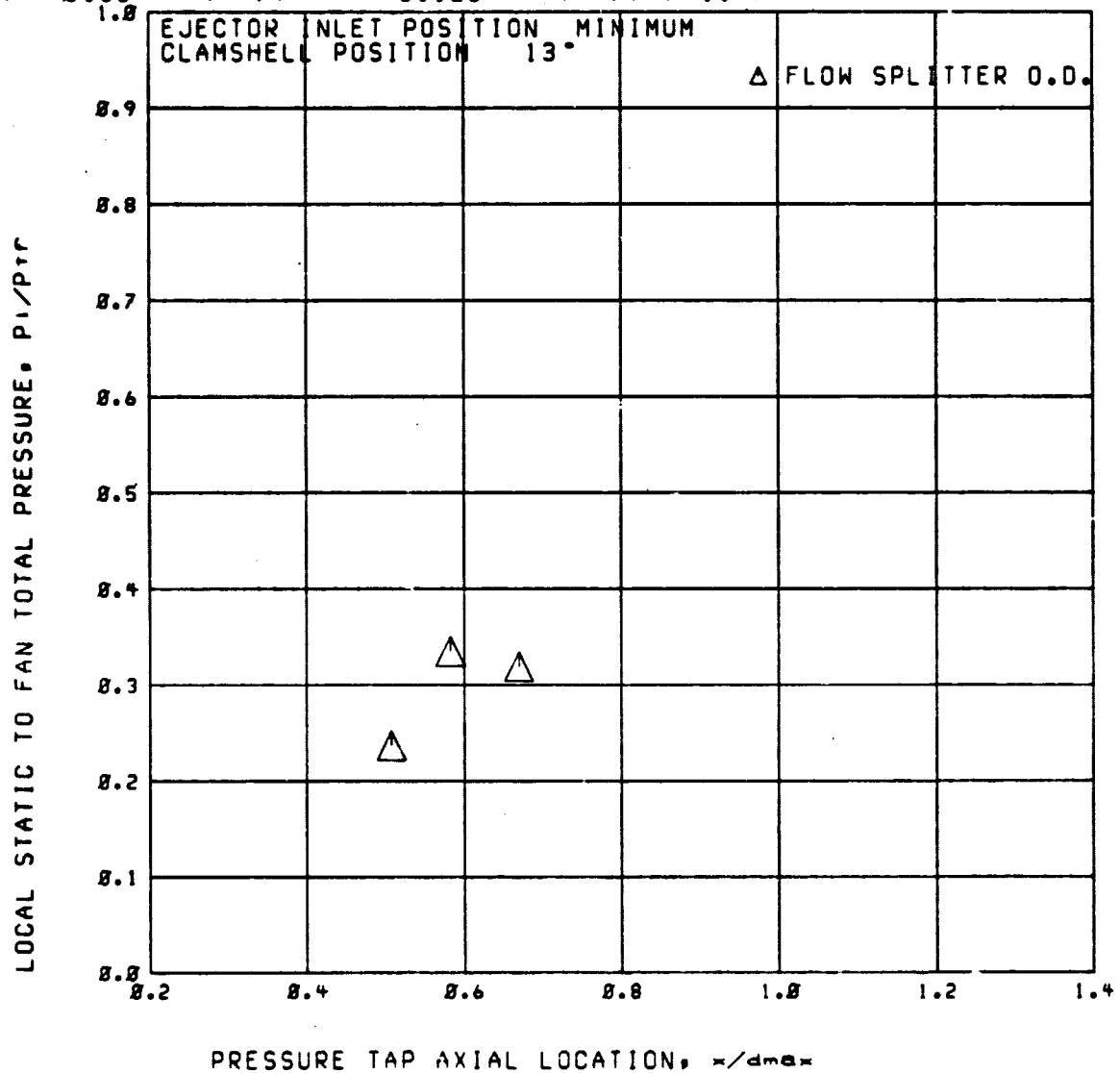
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 = 3.125$

$P_{tr}/P_{tp} = 1.47$



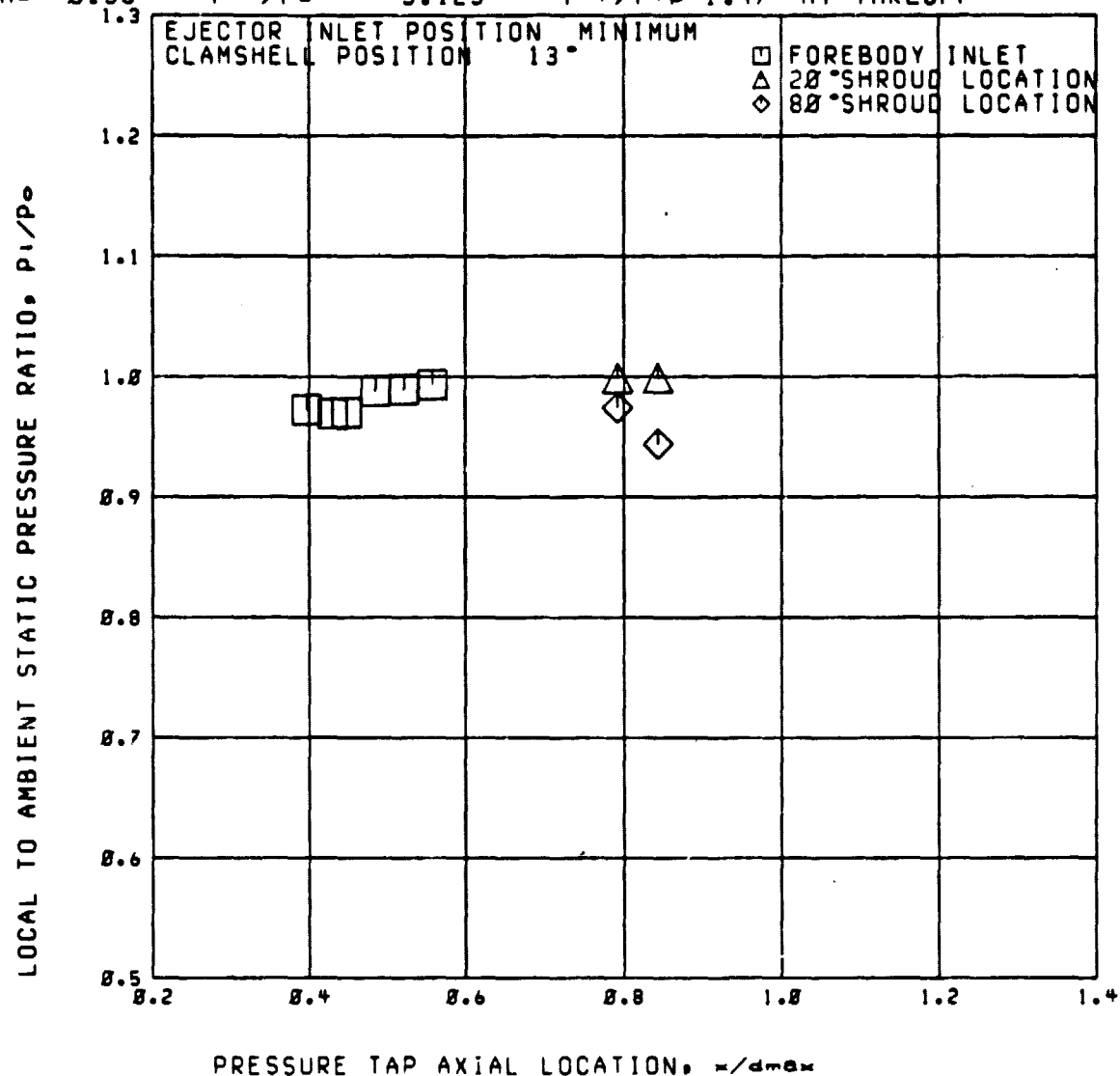
Run 27

C3

RDG=1646

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 3.125$   $P_{tr}/P_{tr} = 1.47$  AT TAKEOFF





RUN 27

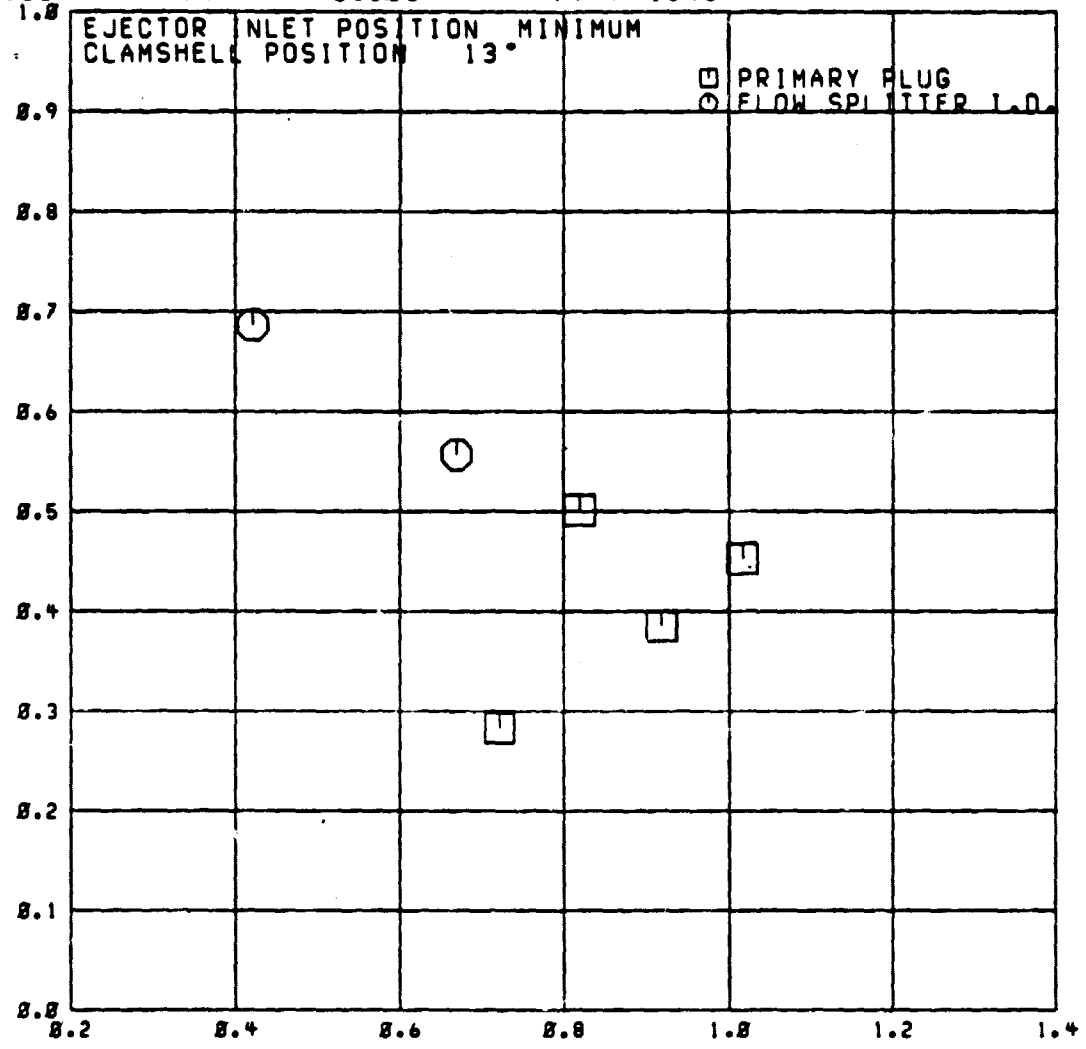
RDG=1647

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 3.605$   $P_{tr}/P_{tp} = 1.46$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_t/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

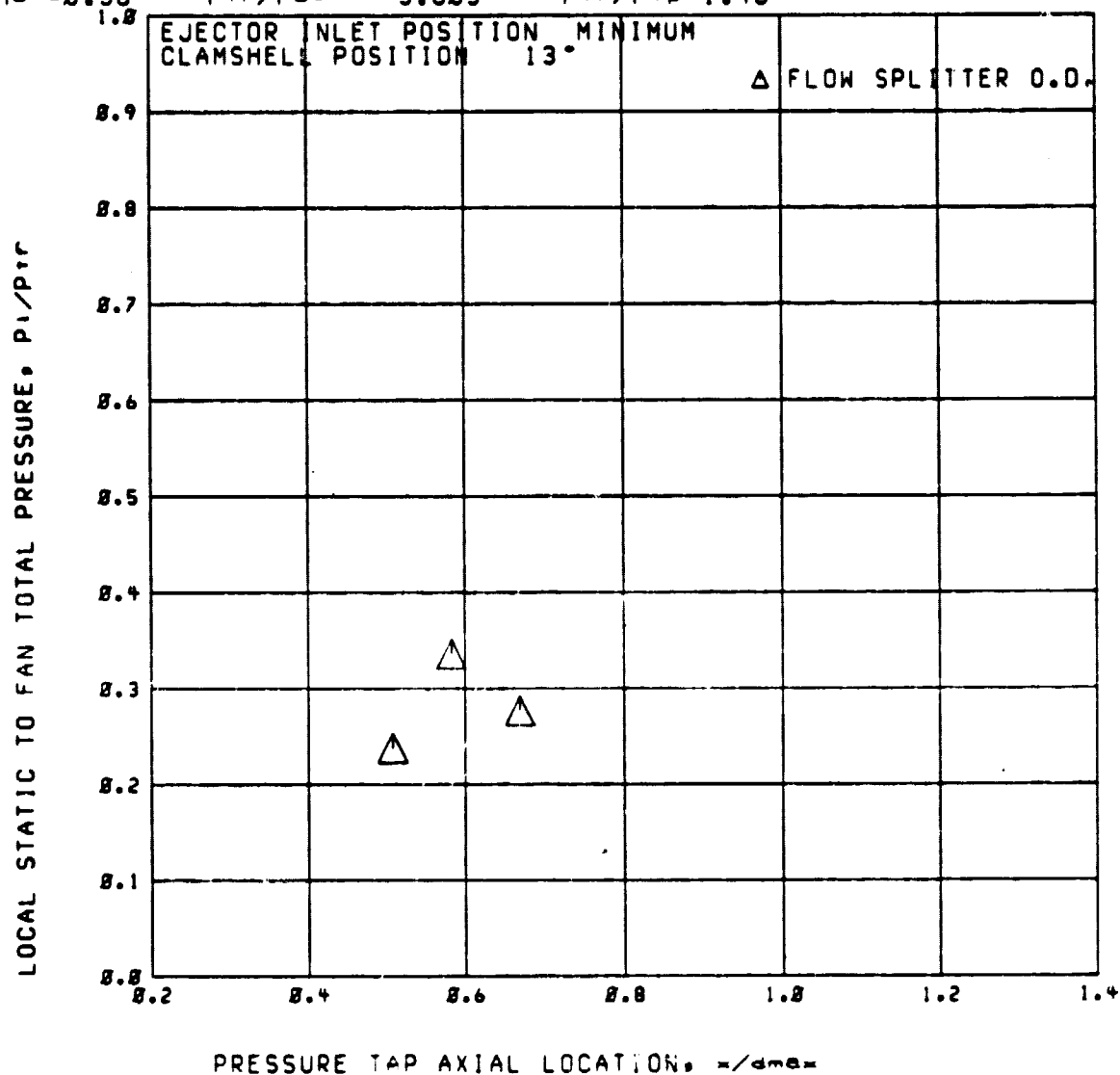
RUN 27

RDS-1647

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.36$   $P_{tr}/P_{os} = 3.685$   $P_{tr}/P_{tp} = 1.46$



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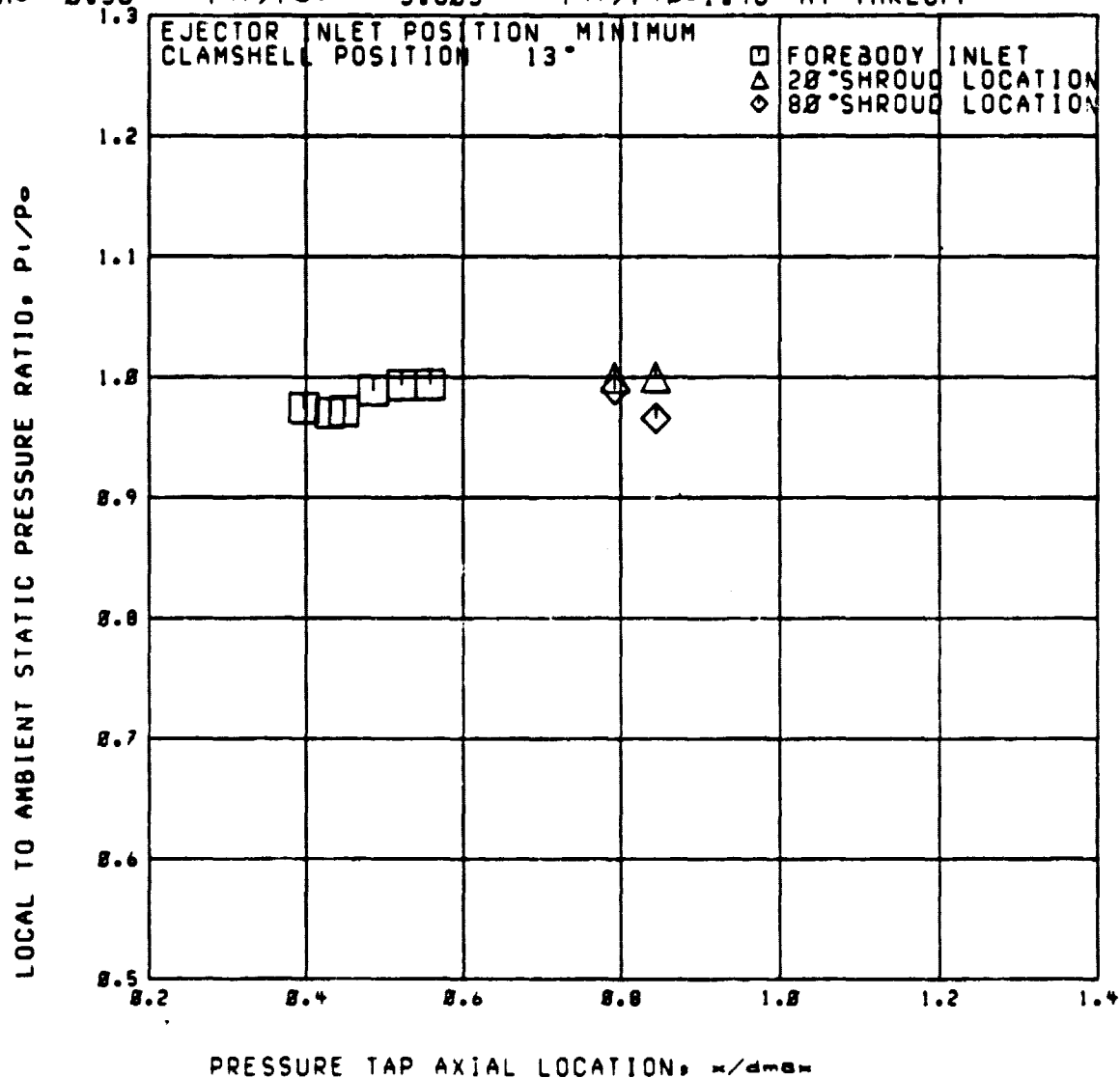
RUN 27

RDG=1647

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{ic}/P_o = 3.685$   $P_{ic}/P_{ie} = 1.46$  AT TAKEOFF



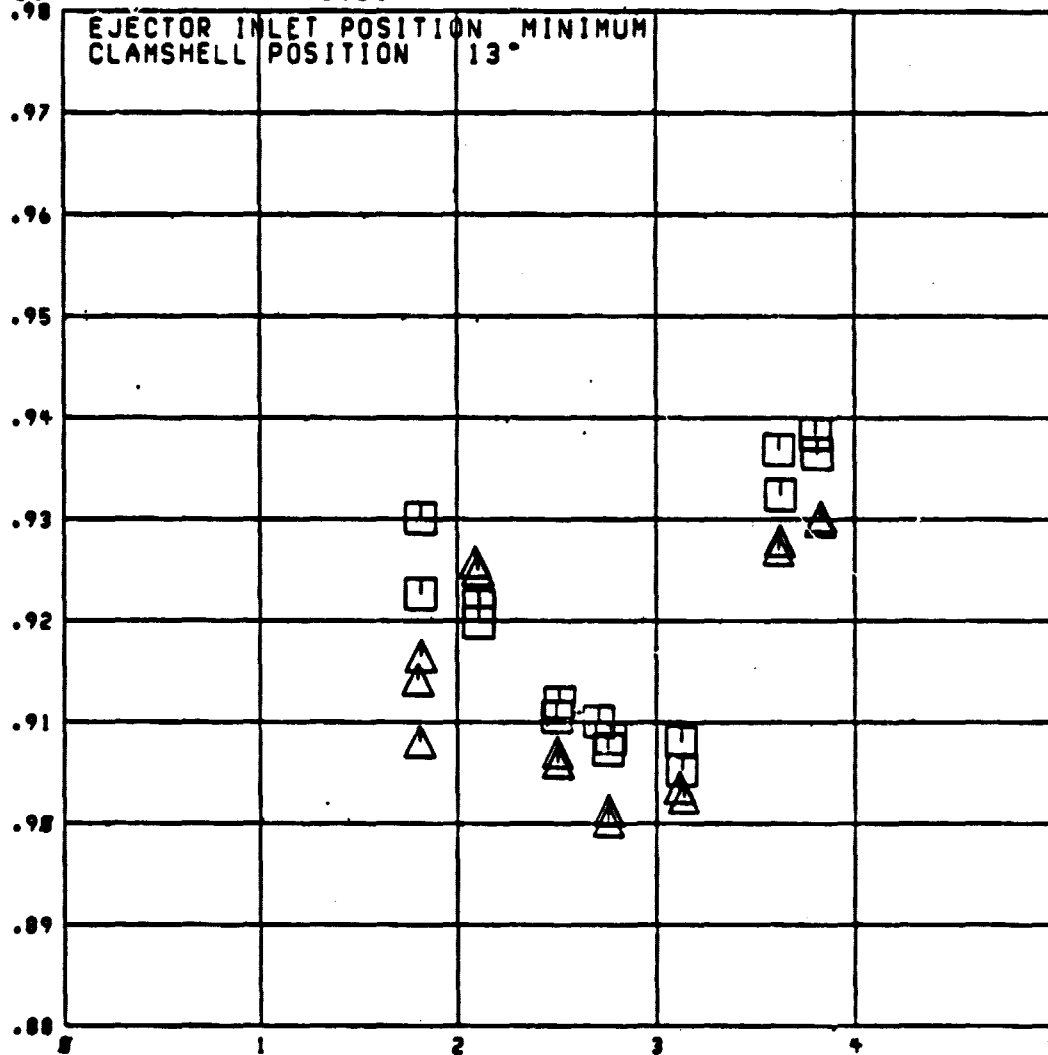
ROG. 1654-1634

C33  
TAKEOFF  
RUN 28

$M = 2.36$

$P_{TC}/P_{TD} = \square = 1.46$   
 $\Delta = 1.78$

NOZZLE GROSS THRUST COEFFICIENT, CFPJ



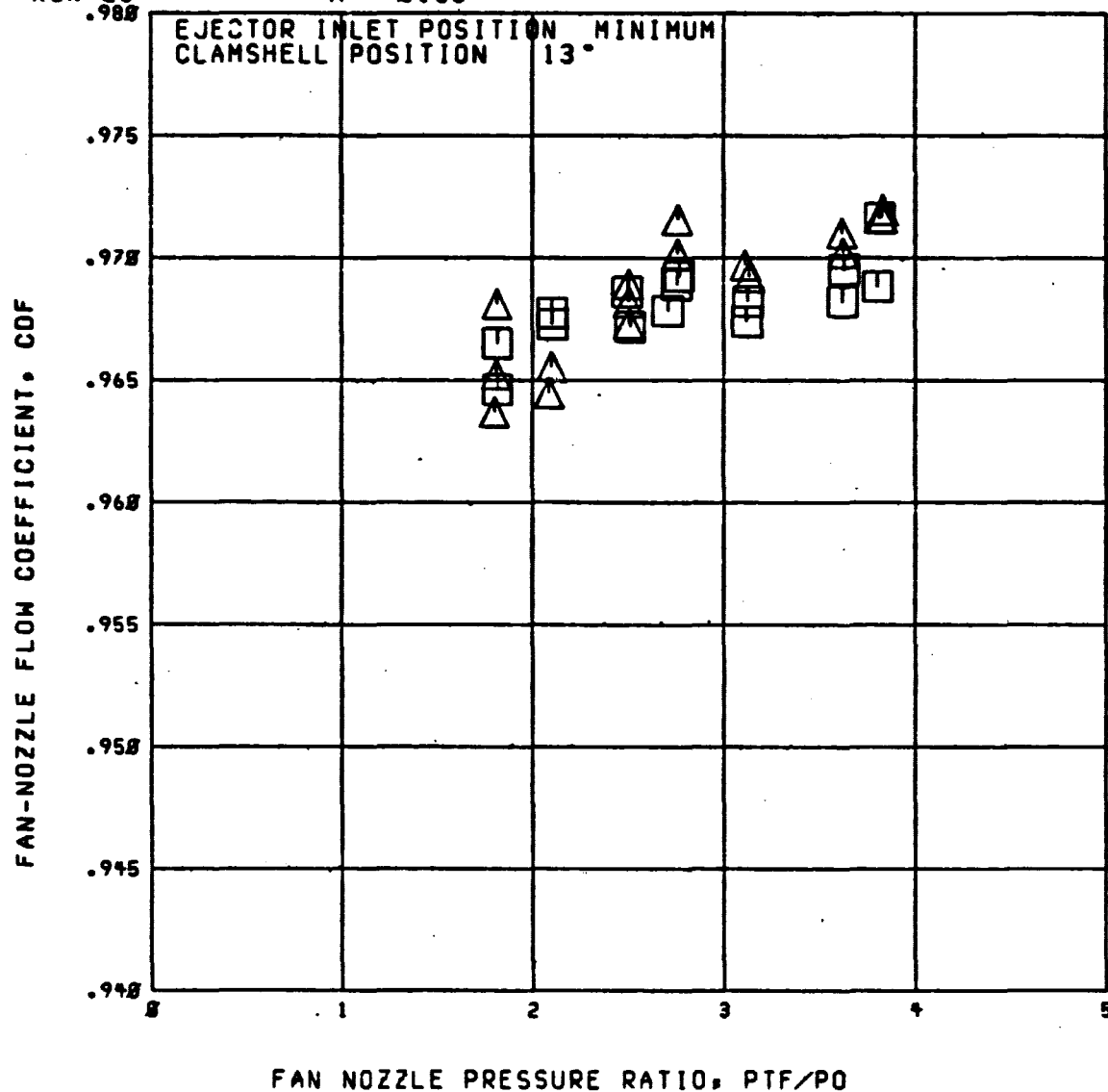
FAN NOZZLE PRESSURE RATIO, PTF/PO

ROG. 1654-1684

C33  
TAKEOFF  
RUN 28

$M = 8.36$

$P_{TC}/P_{TP} = \square = 1.46$   
 $\Delta = 1.78$



RDG. 1654-1684

C33

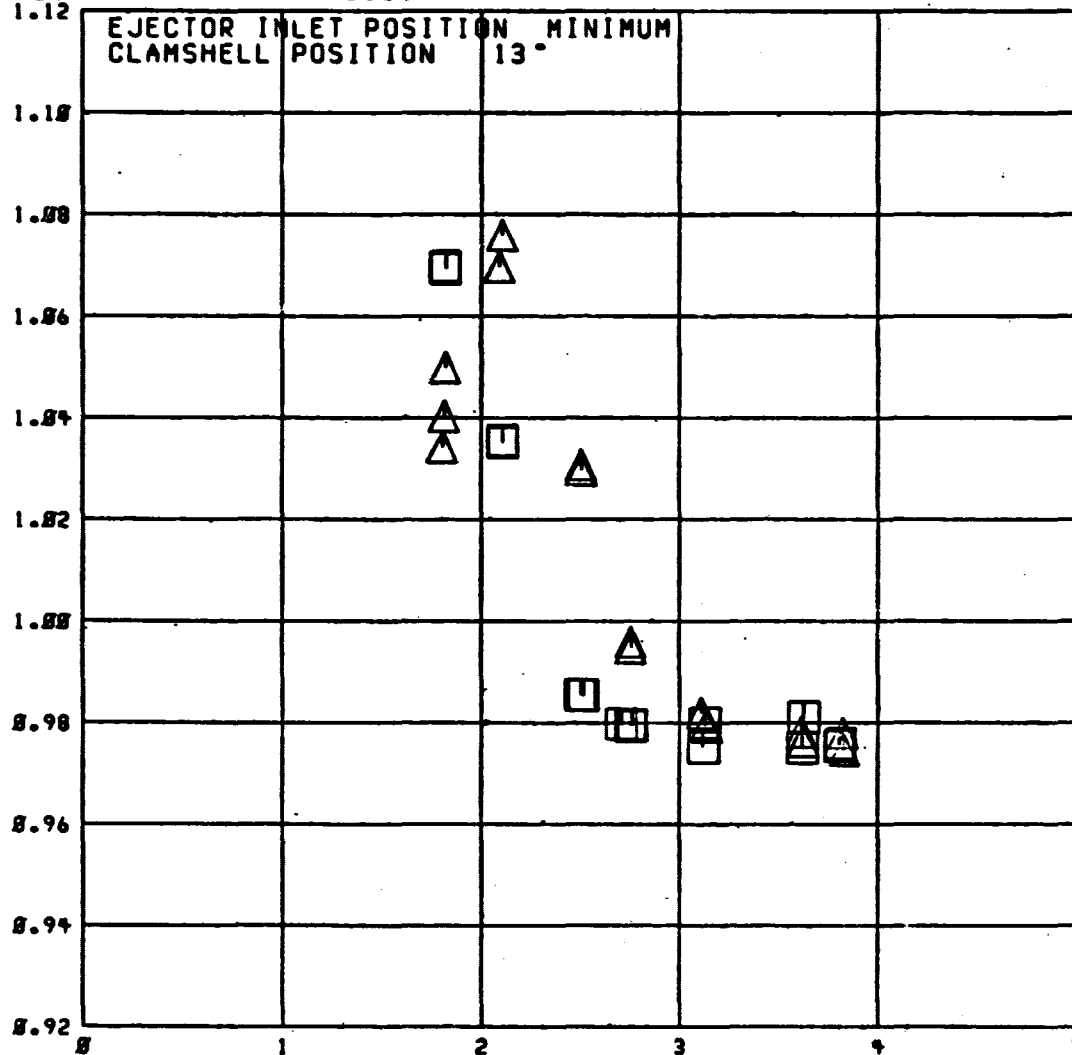
TAKEOFF

RUN 28

$M_0 = 0.36$

$P_{TC}/P_{TD} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP



FAN NOZZLE PRESSURE RATIO, PTF/PO

RUN 28

RDG=1678

C33

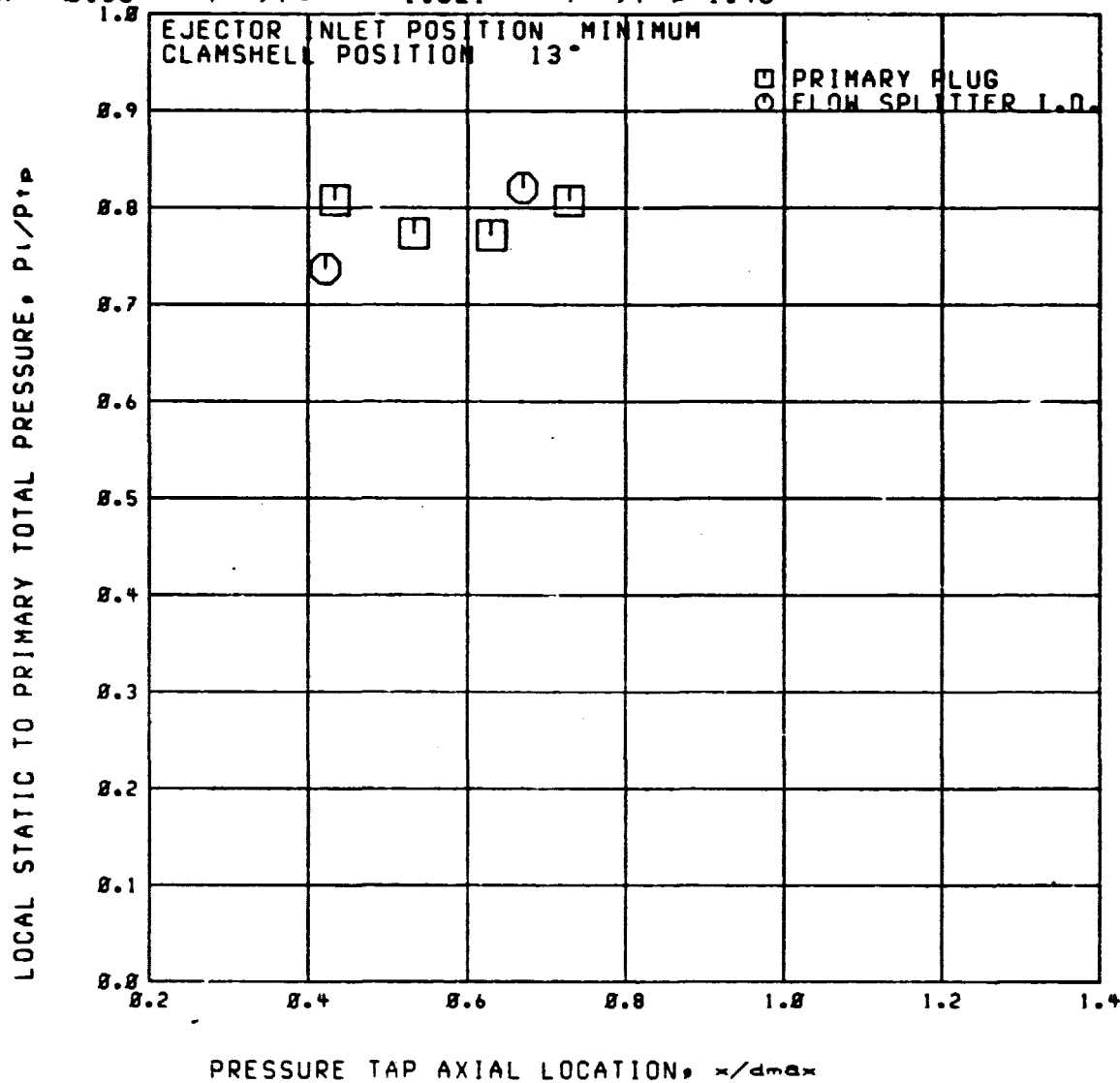
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$

$P_{tr}/P_o =$

1.821

$P_{tr}/P_{tr} = 1.46$



ORIGINAL FILED IN  
OF POOR QUALITY

ORIGINAL FILED IN  
OF POOR QUALITY

Run 28

RDG=1678

C33

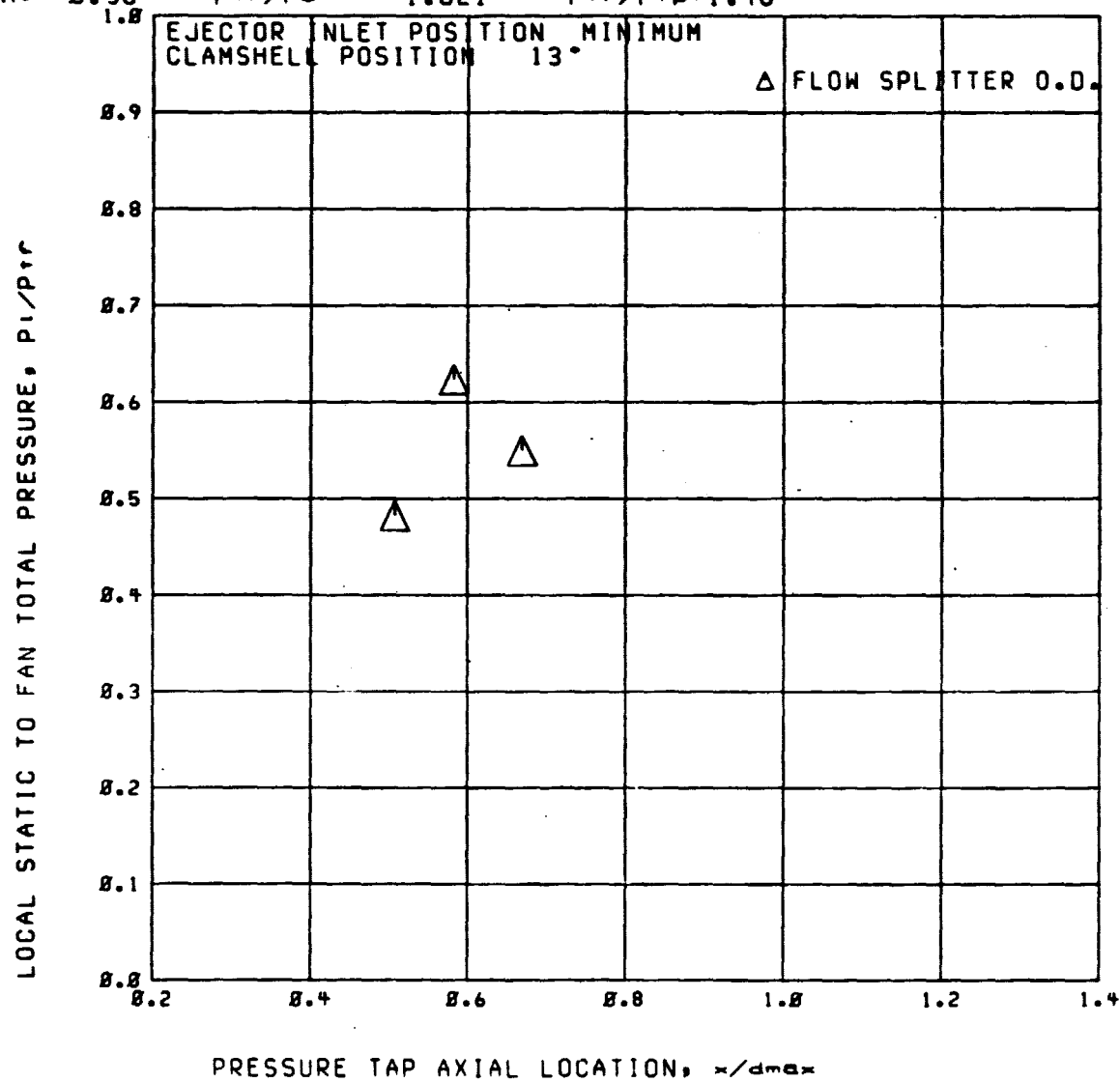
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$

$P_{tr}/P_o =$

1.821

$P_{tr}/P_{tp} = 1.46$





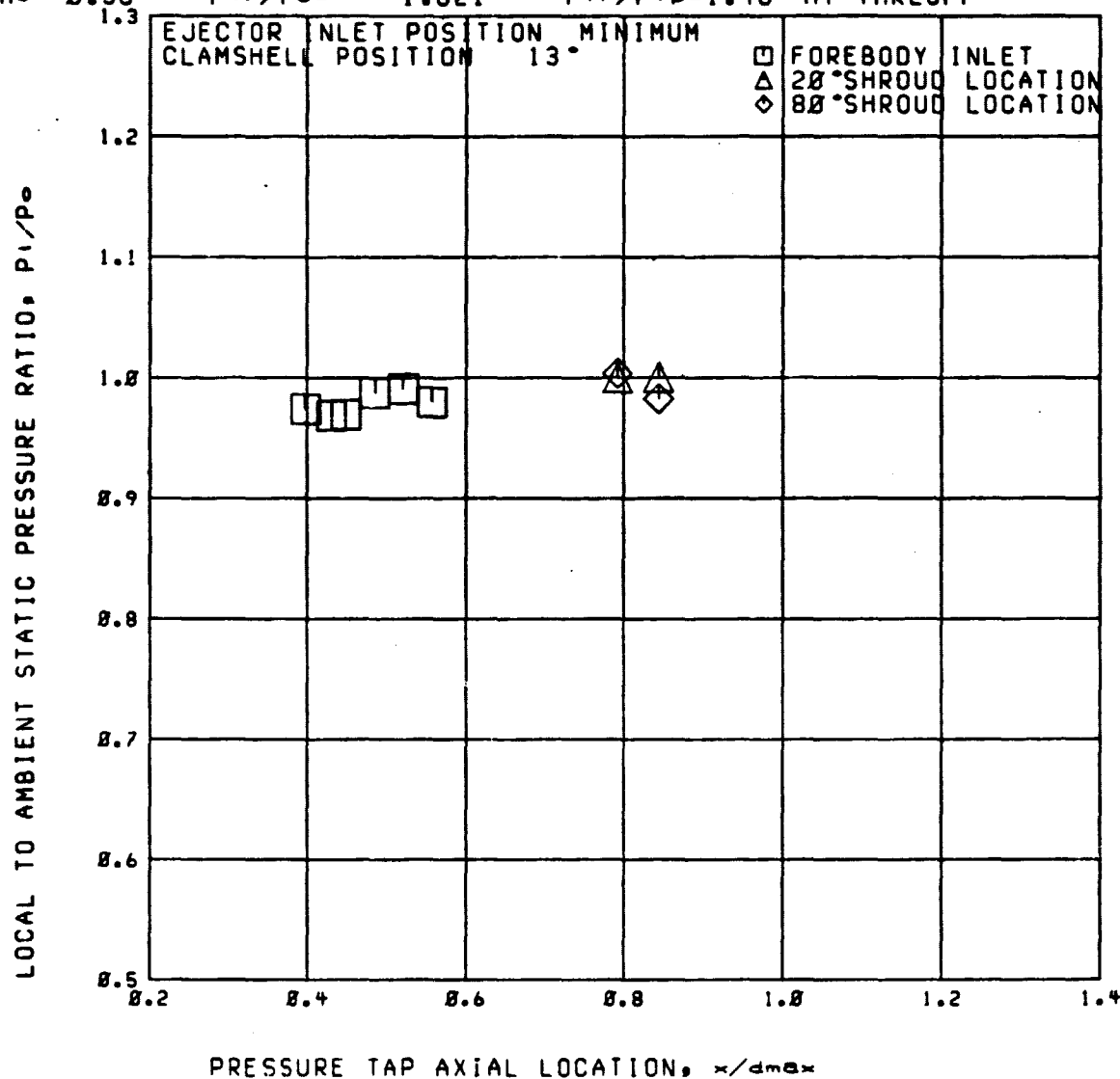
RUN 28

C33

RDG=1678

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 1.821$   $P_{tr}/P_{tr} = 1.46$  AT TAKEOFF



Run 28

RDG=1671

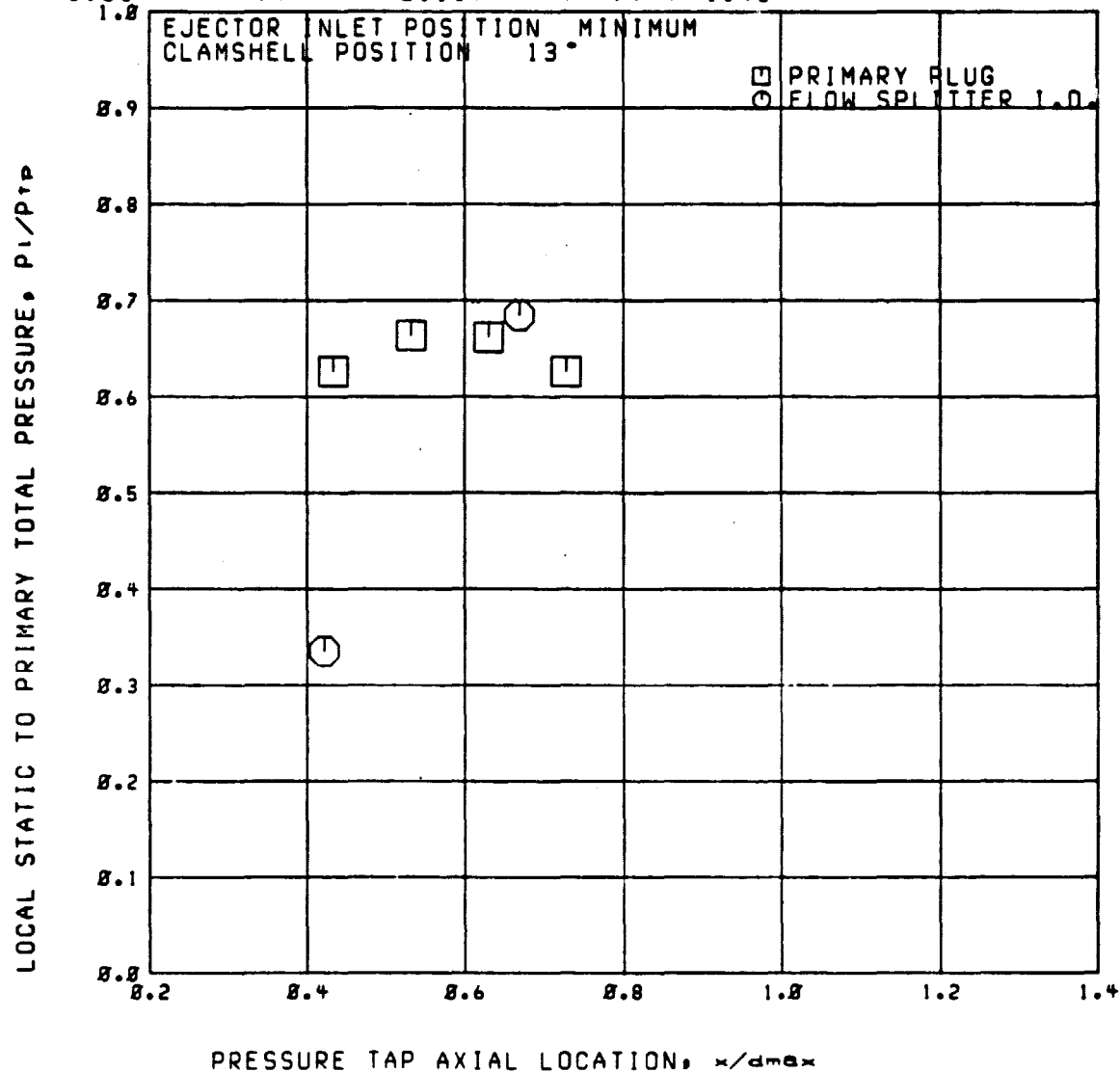
C33

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 = 2.109$

$P_{tr}/P_{tp} = 1.45$



Run 28

C33

RDG=1671

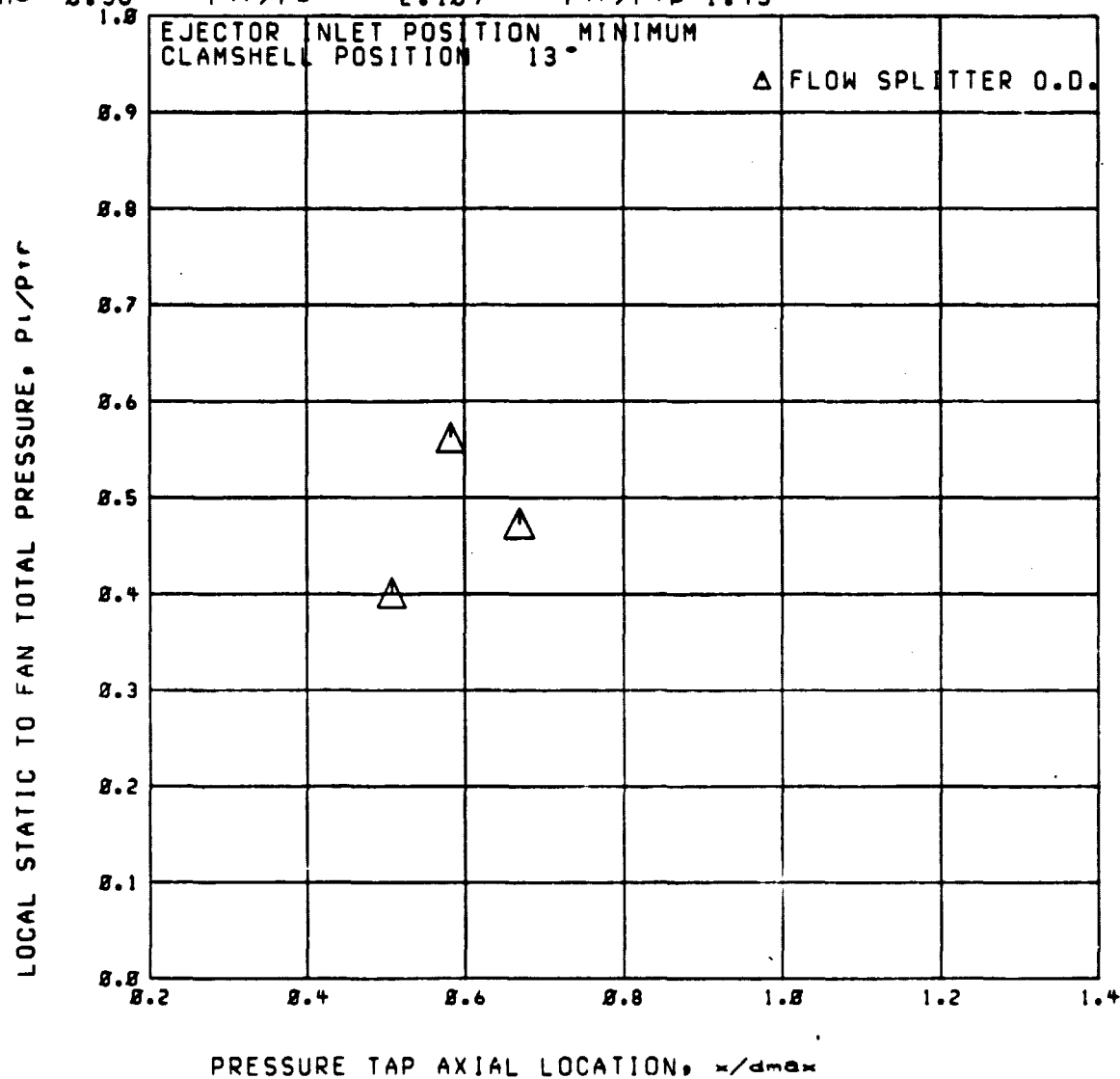
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_{02} =$

2.189

$P_{tr}/P_{tp} = 1.45$



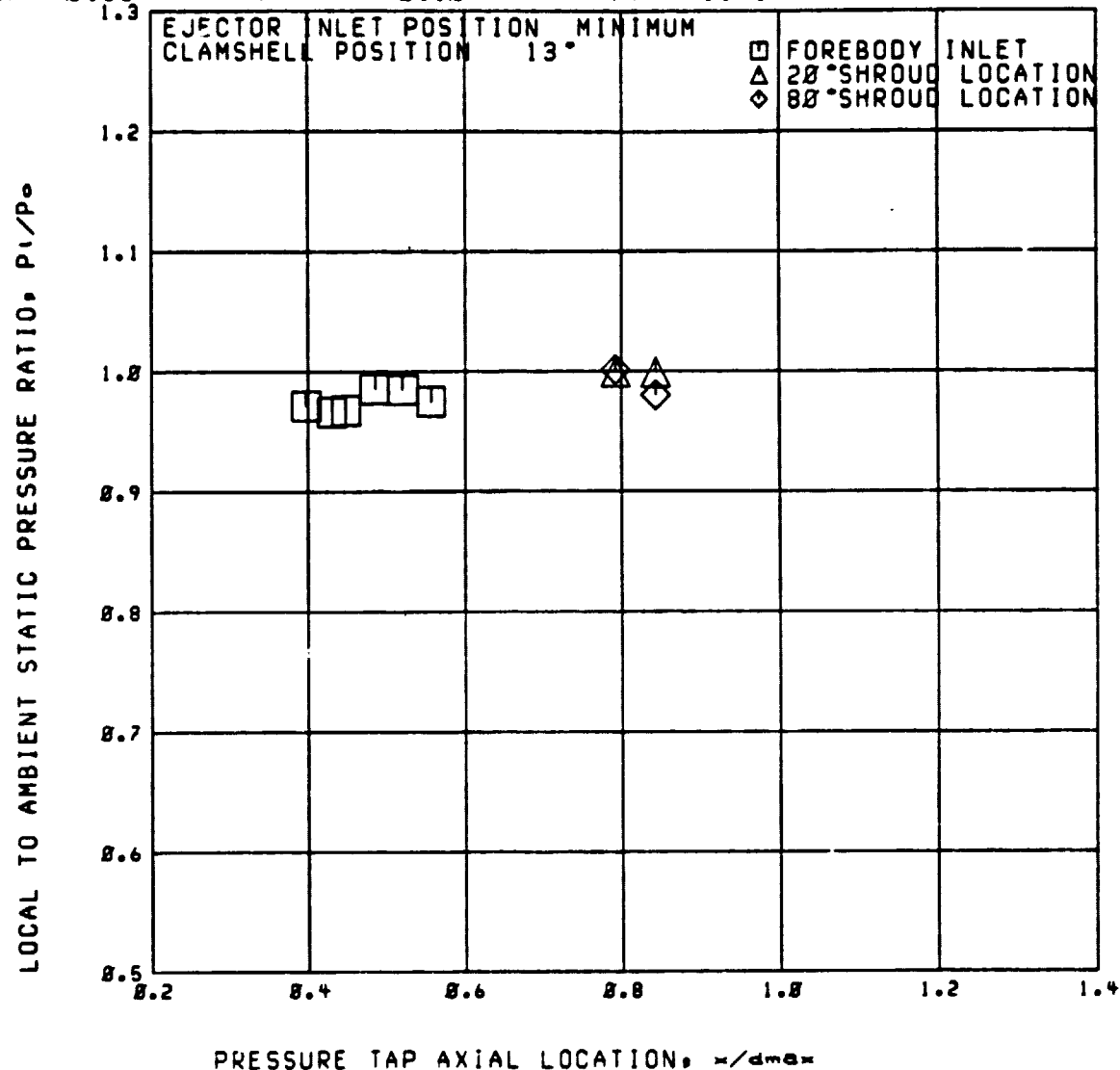
RUN 28

RDG=1671

C33

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 2.109$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



ORIGINAL PHOTO  
OF FOUR QUALITY

Run 28

RDG=1672

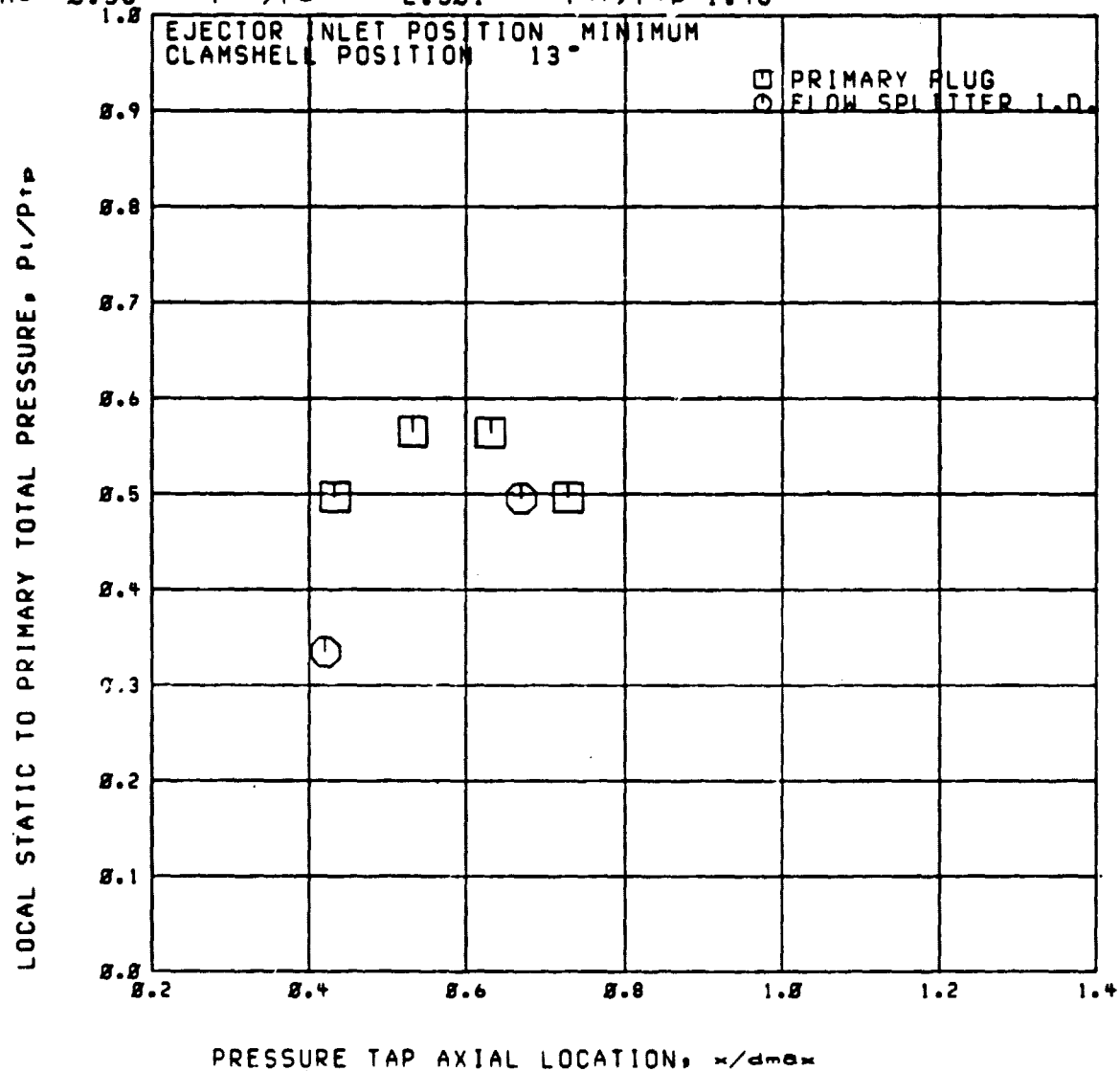
C33

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 = 2.581$

$P_{tr}/P_{tp} = 1.46$



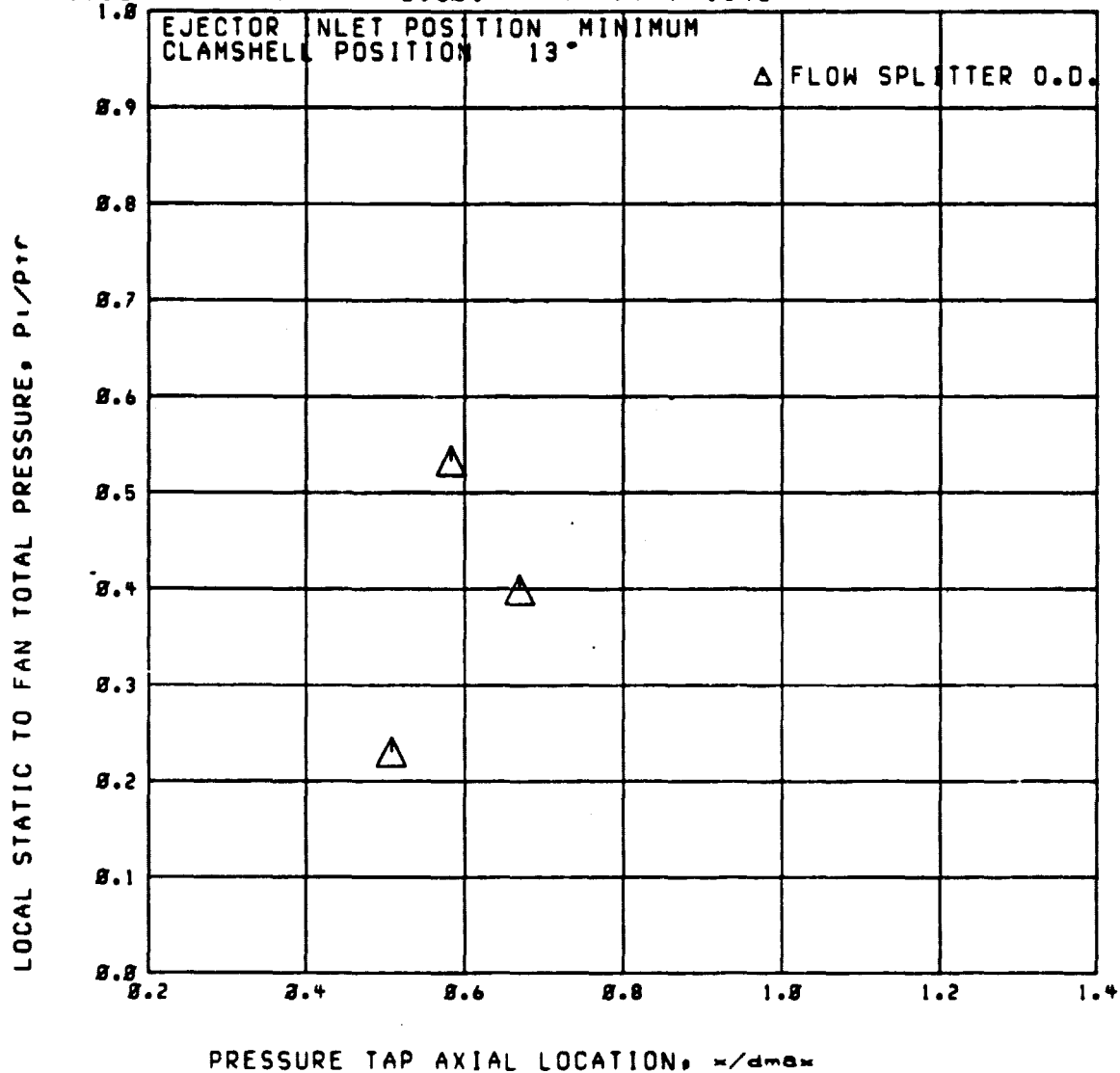
Run 28

RDG=1672

C33

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_{02} = 2.581$   $P_{tr}/P_{tp} = 1.46$



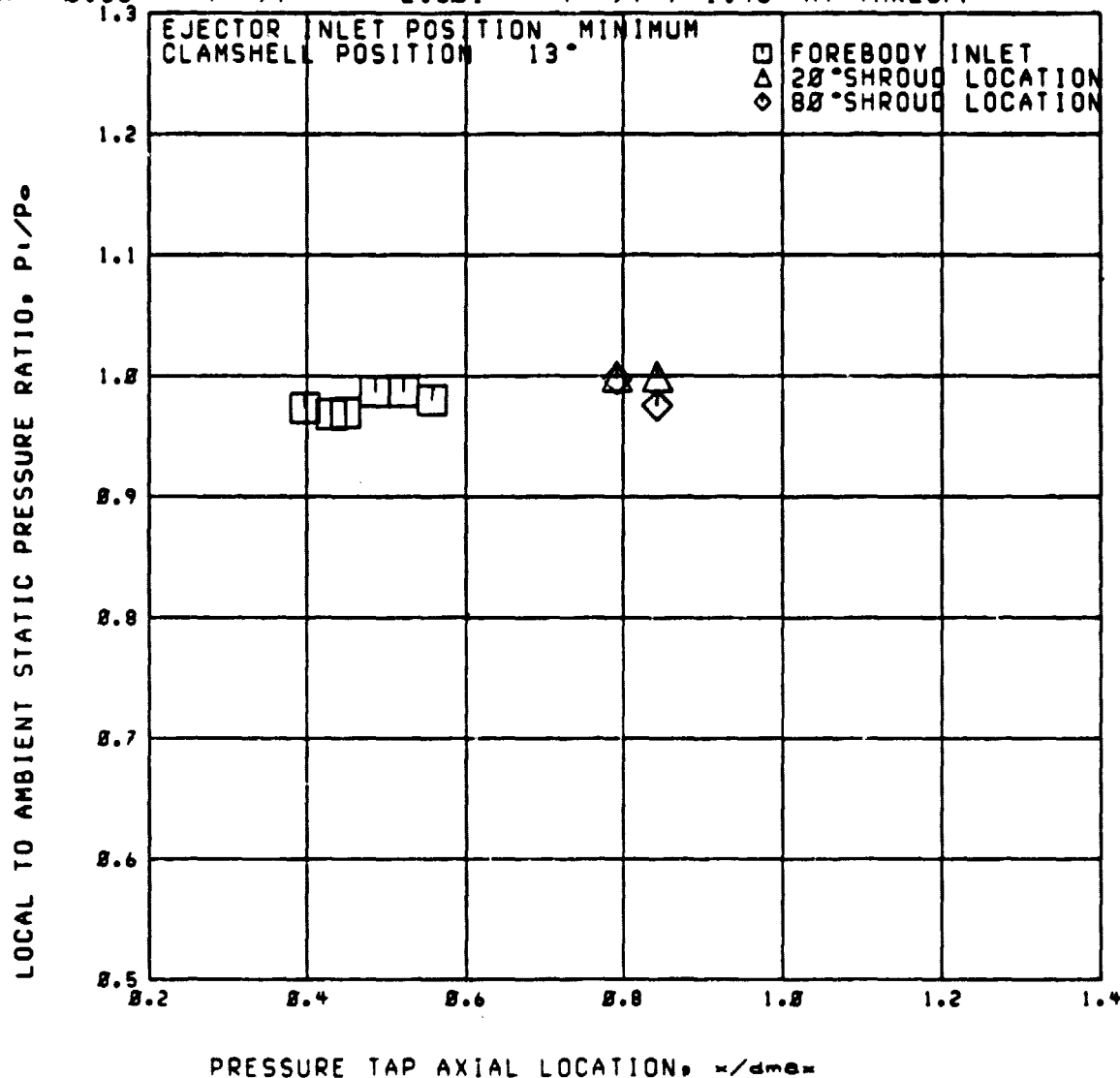
RUN 28

RDG=1672

C33

EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 8.36$   $P_{ir}/P_o = 2.581$   $P_{ir}/P_{ip} = 1.46$  AT TAKEOFF



RUN 28

RDG=1673

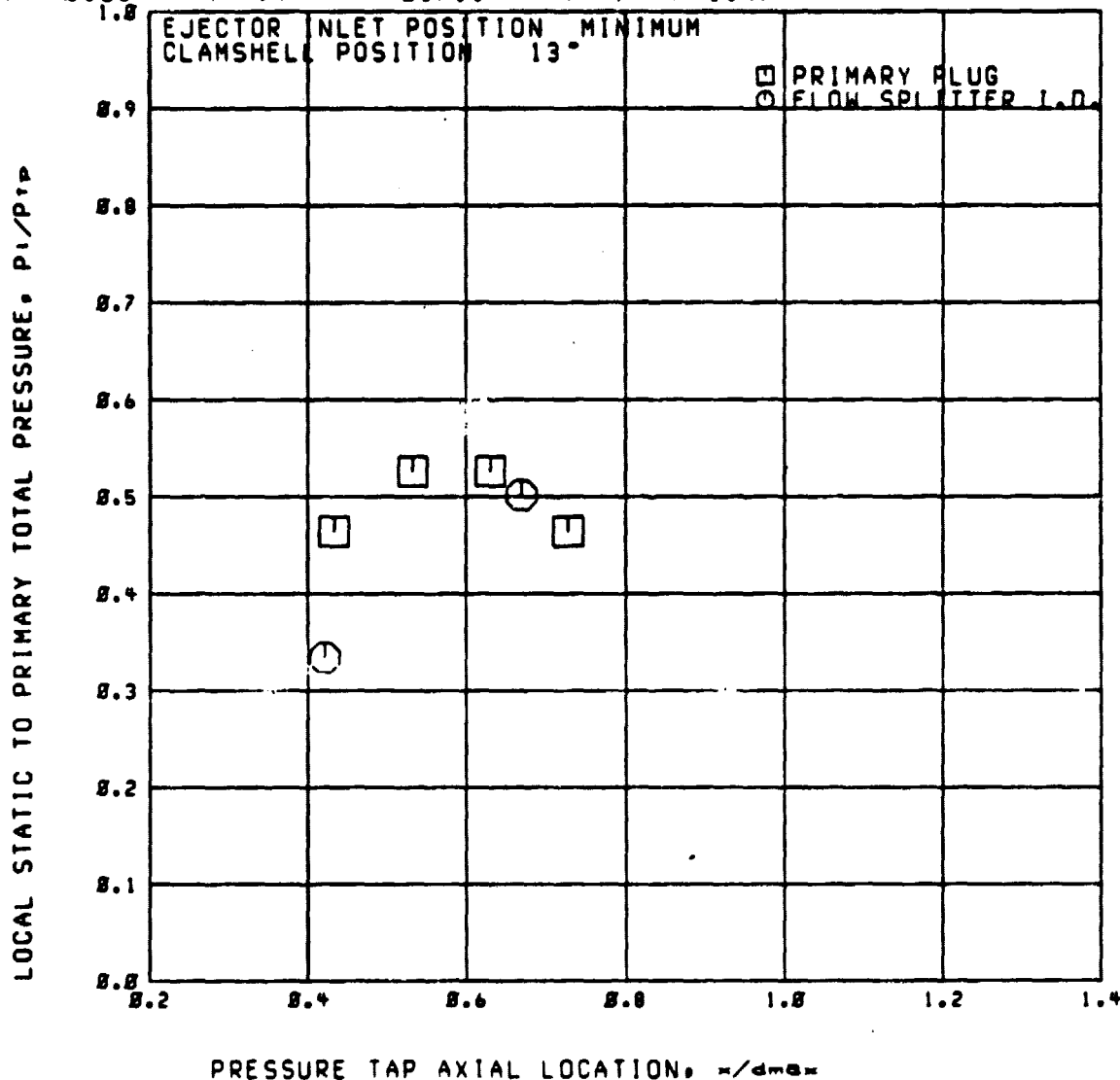
C33

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 8.36$

$P_{1c}/P_{0c} = 2.711$

$P_{1c}/P_{1p} = 1.47$





RUN 28

RDG-1673

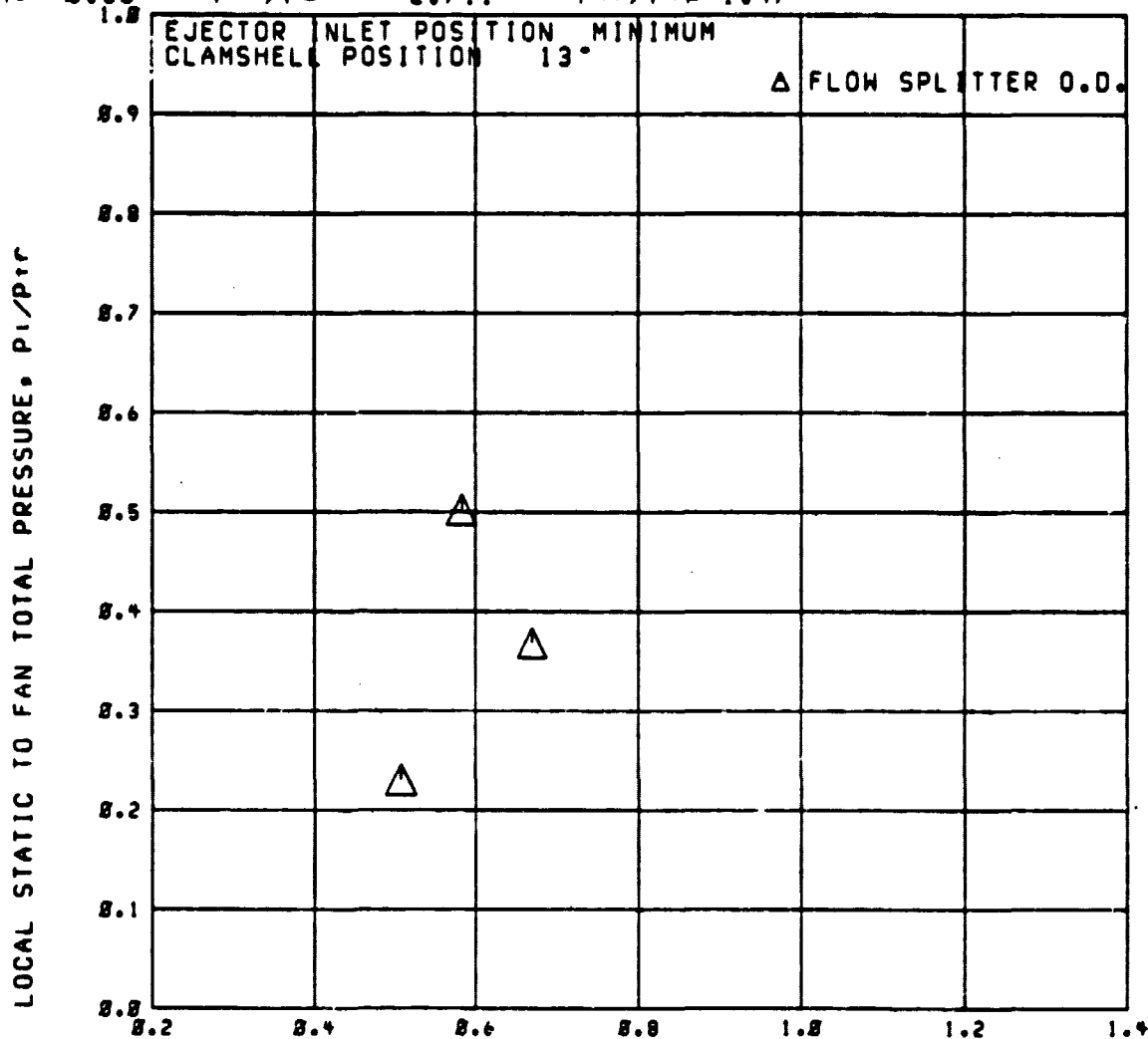
C33

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.36$

$P_{tr}/P_{\infty} = 2.711$

$P_{tr}/P_{tr} = 1.47$



OF YOUR COMPANY

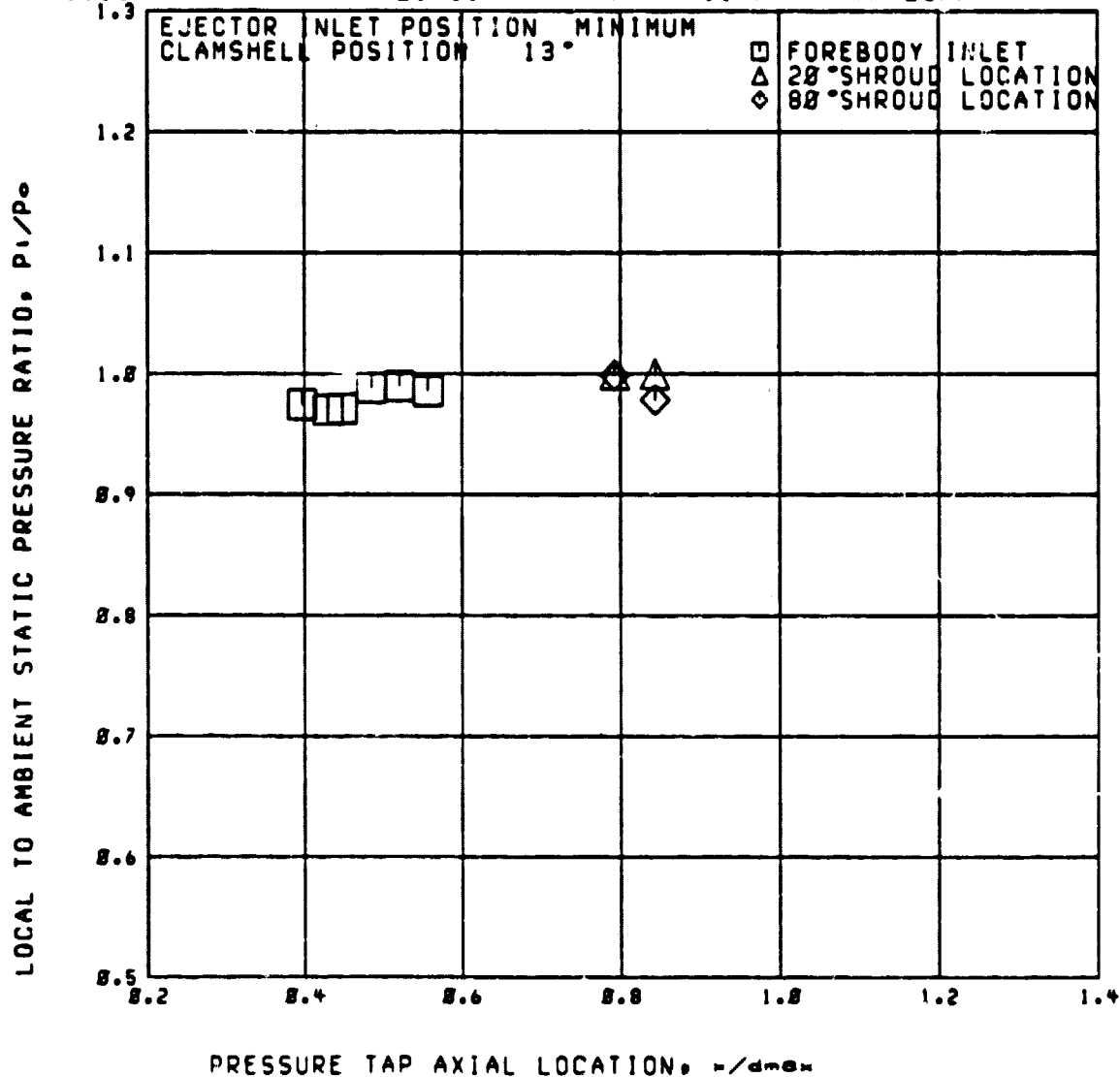
Run 28

C33

RDG=1673

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M = 0.36$   $P_{tr}/P_{\infty} = 2.711$   $P_{tr}/P_{tr} = 1.47$  AT TAKEOFF



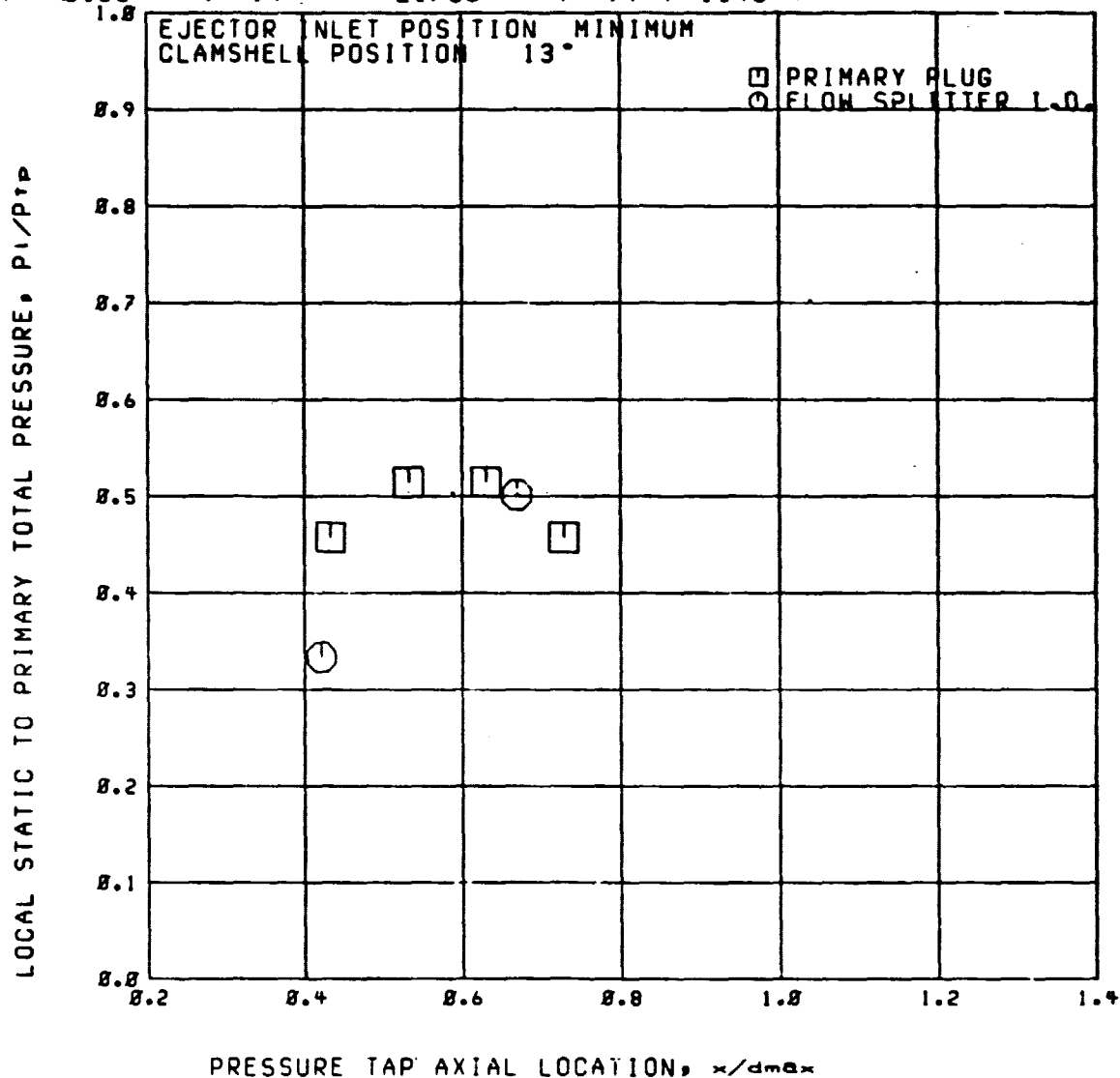
Run 28

C33

RDG=1674

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 2.768$   $P_{tr}/P_{tp} = 1.48$



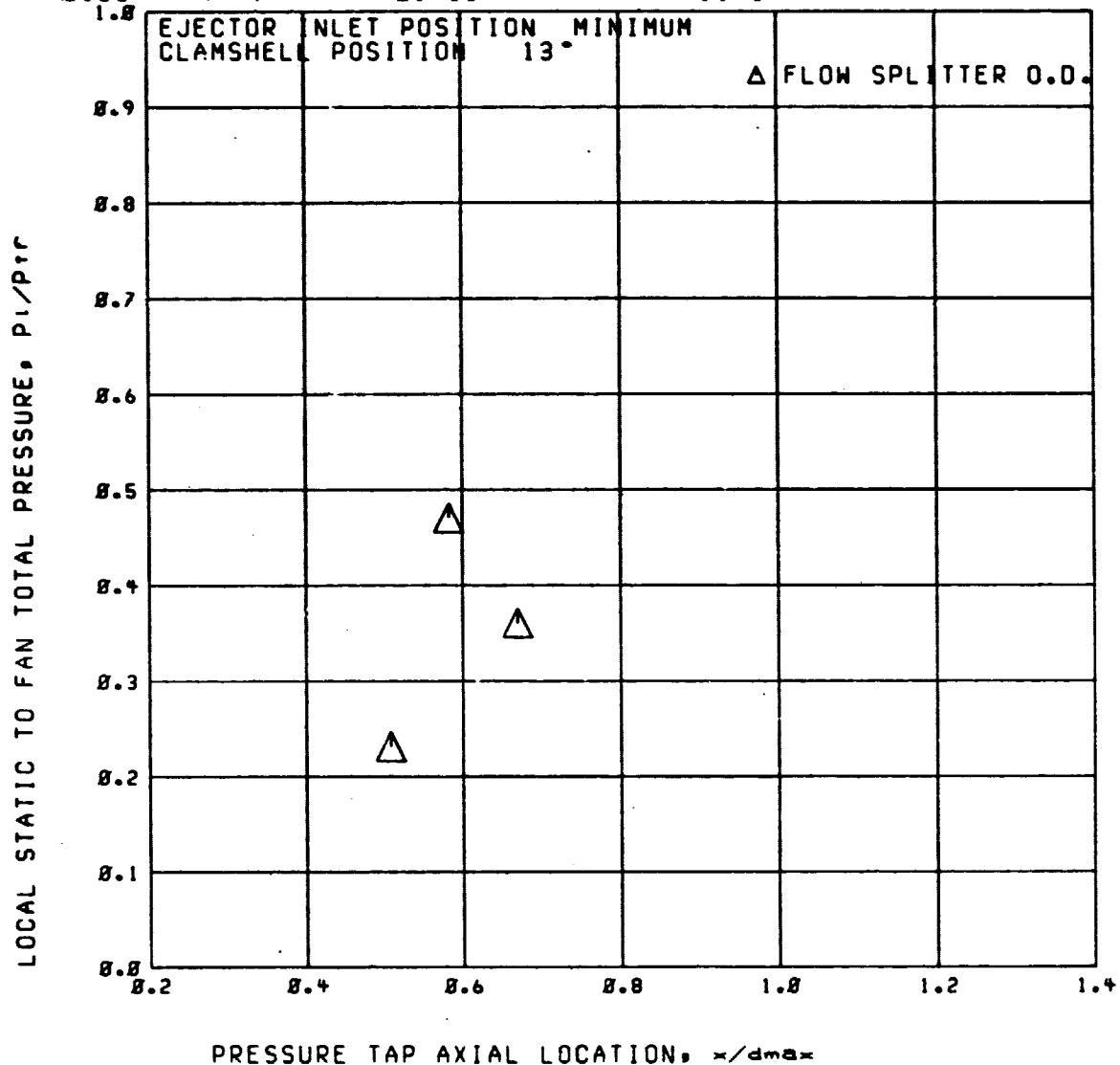
RUN 28

C33

RDG=1674

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{ir}/P_0 = 2.768$   $P_{ir}/P_{ip} = 1.48$



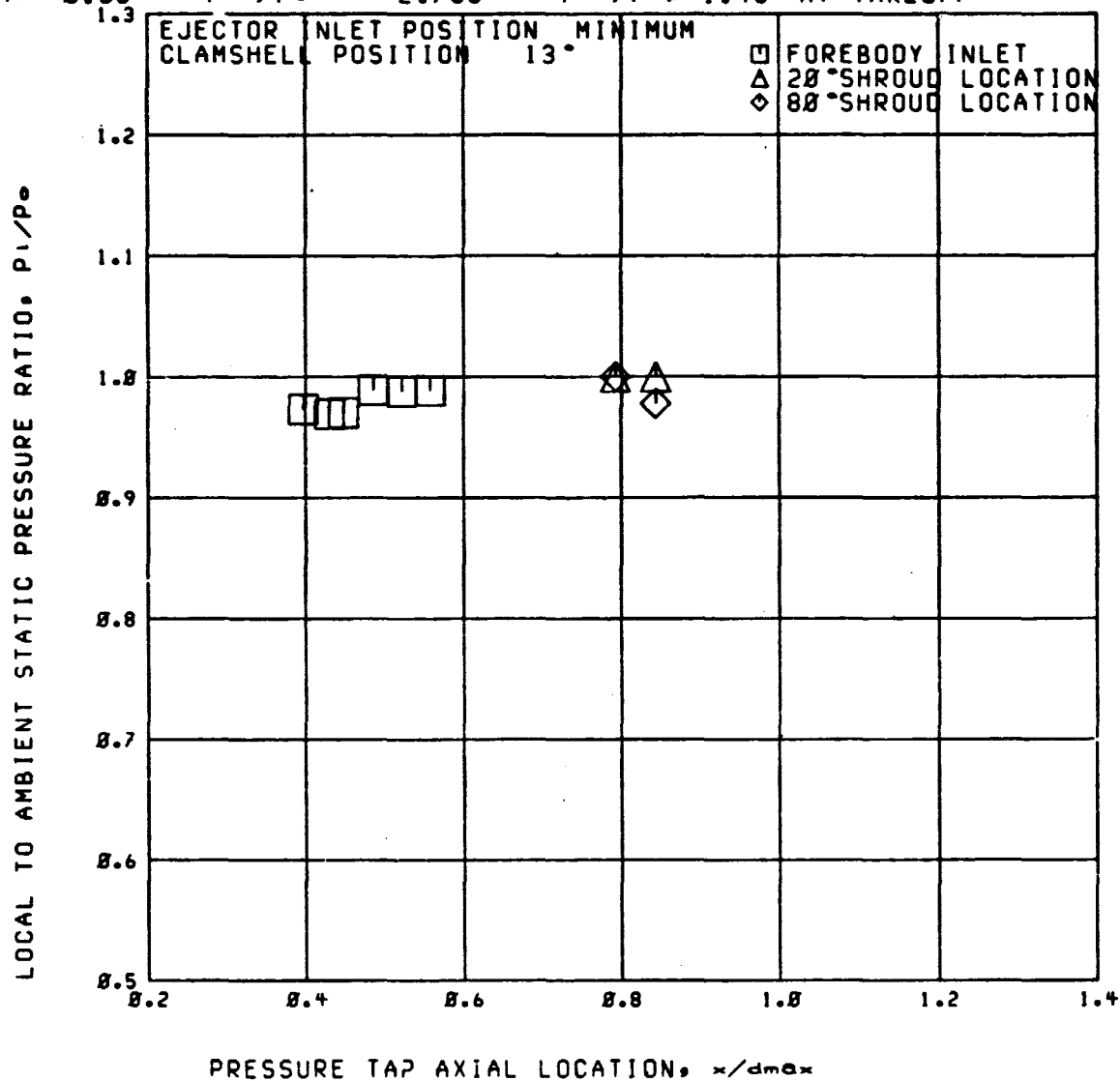
RUN 28

RDG=1674

C33

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 2.768$   $P_{tr}/P_{tr} = 1.48$  AT TAKEOFF



Run 28

RDG=1675

C33

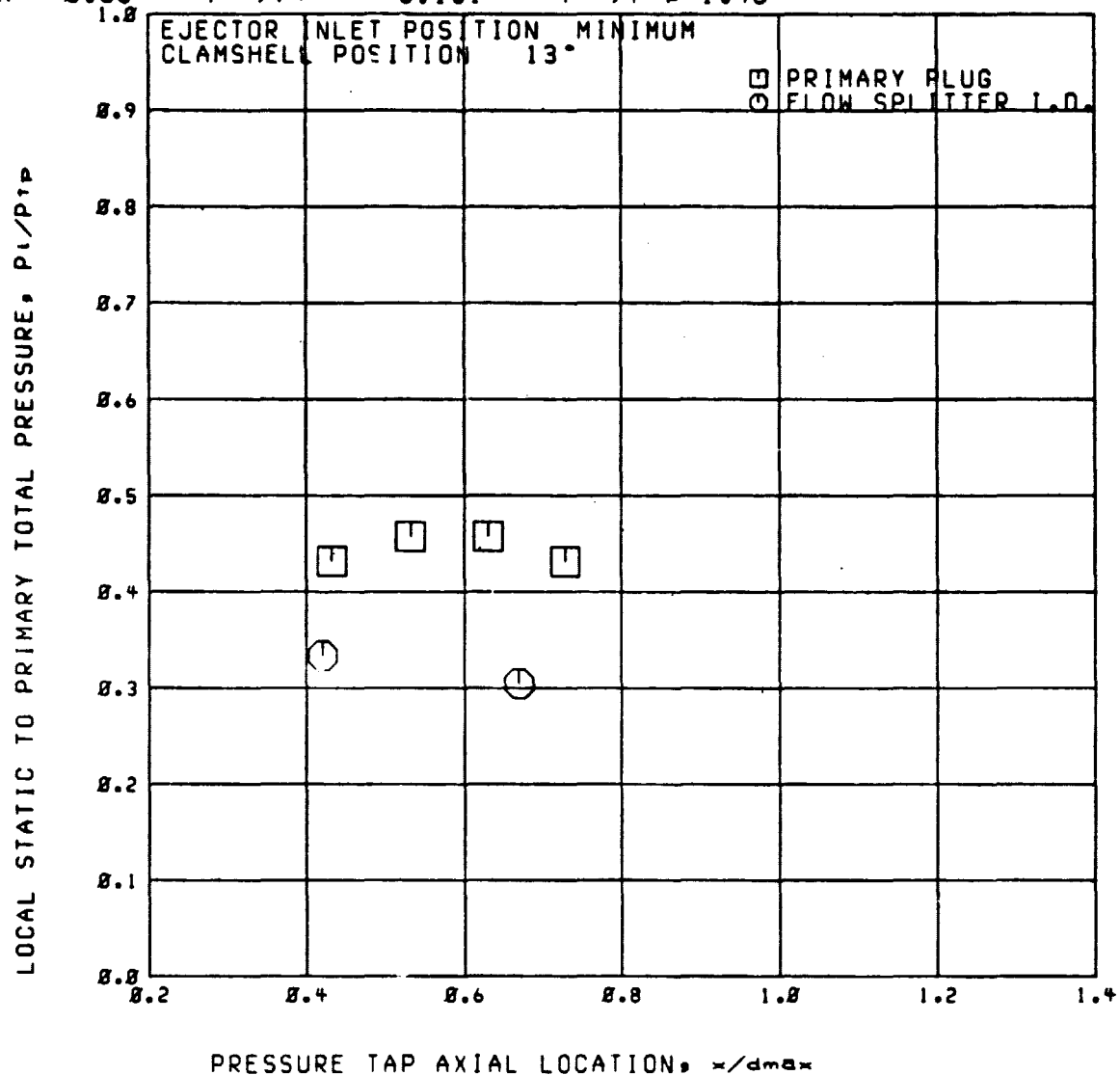
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$

$P_{tr}/P_o =$

3.131

$P_{tr}/P_{tp} = 1.48$



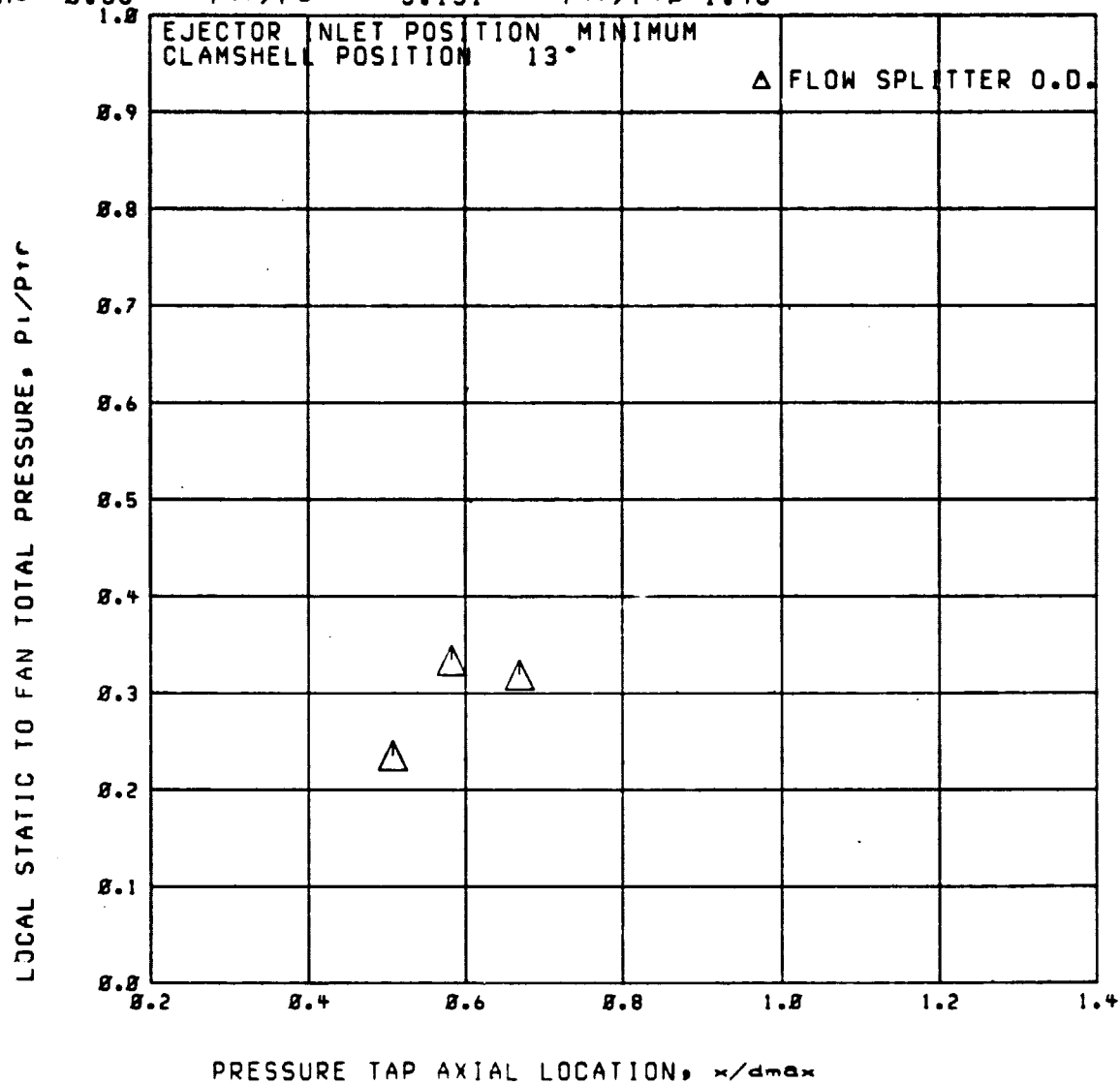
Run 2B

C33

RDG=1675

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 3.131$   $P_{tr}/P_{tp} = 1.48$



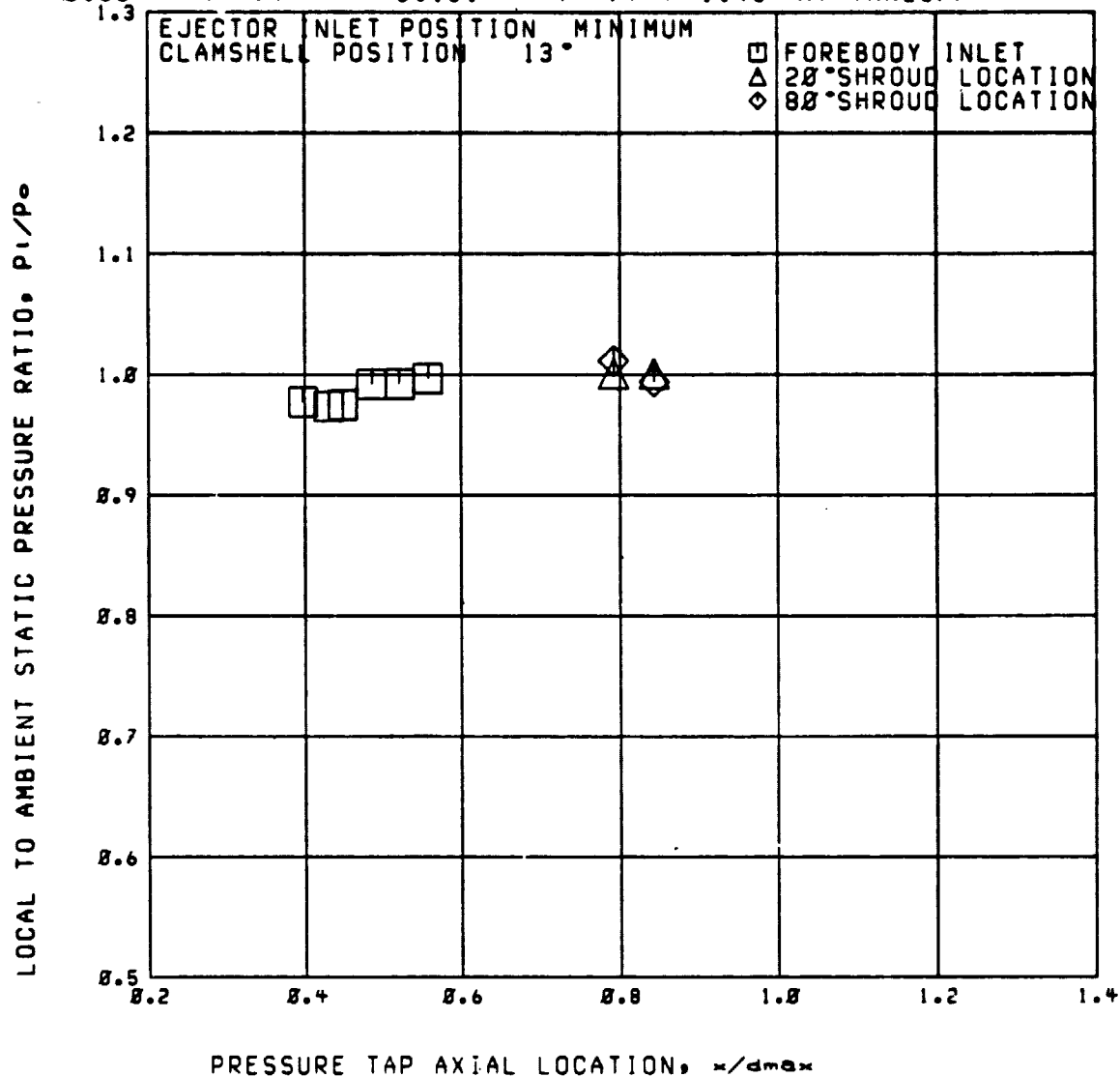
Run 28

RDG=1675

C33

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 3.131$   $P_{tr}/P_{tr} = 1.48$  AT TAKEOFF





Run 28

RDG-1676

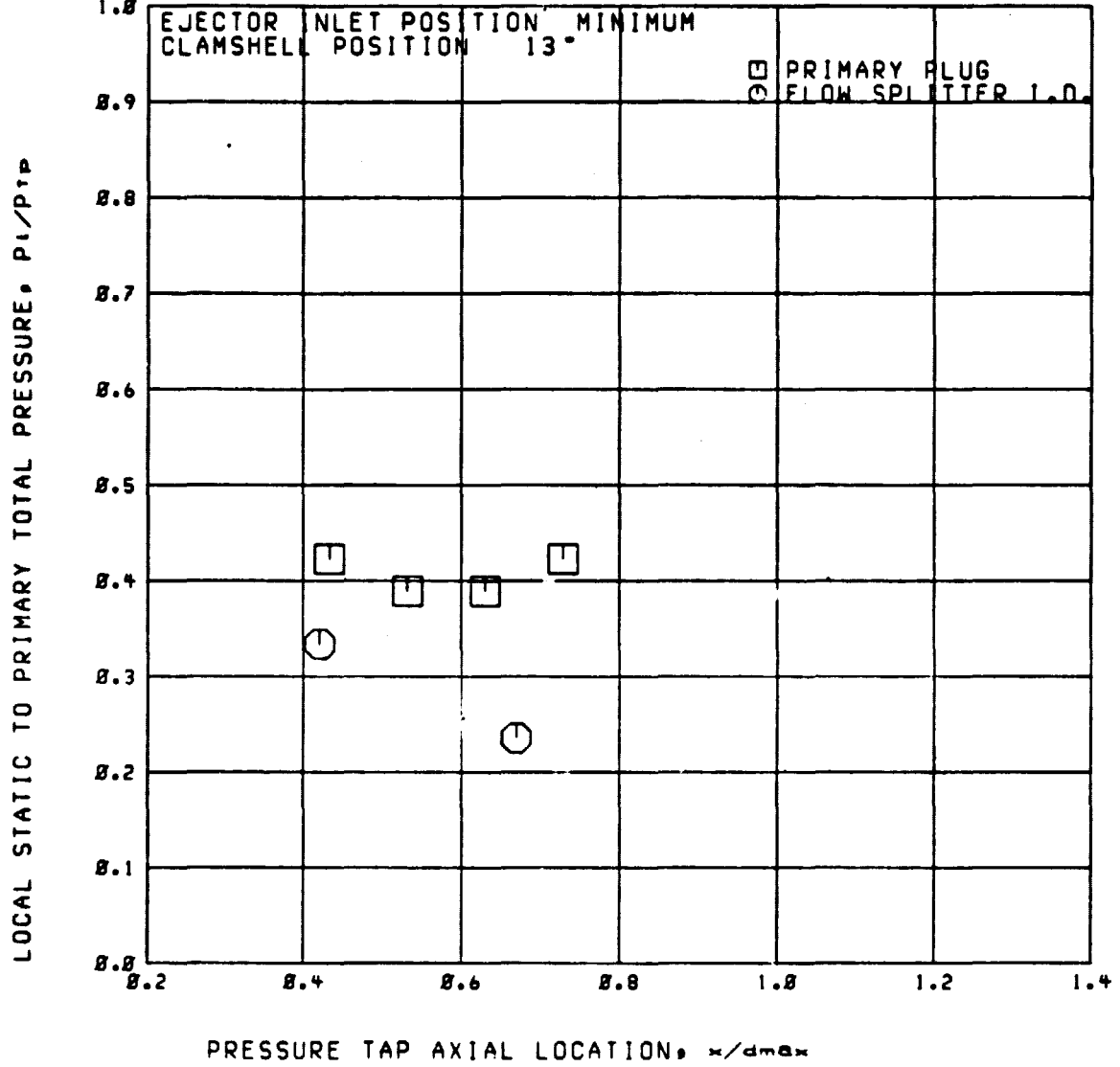
C33

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 = 3.629$

$P_{tr}/P_{tr} = 1.45$



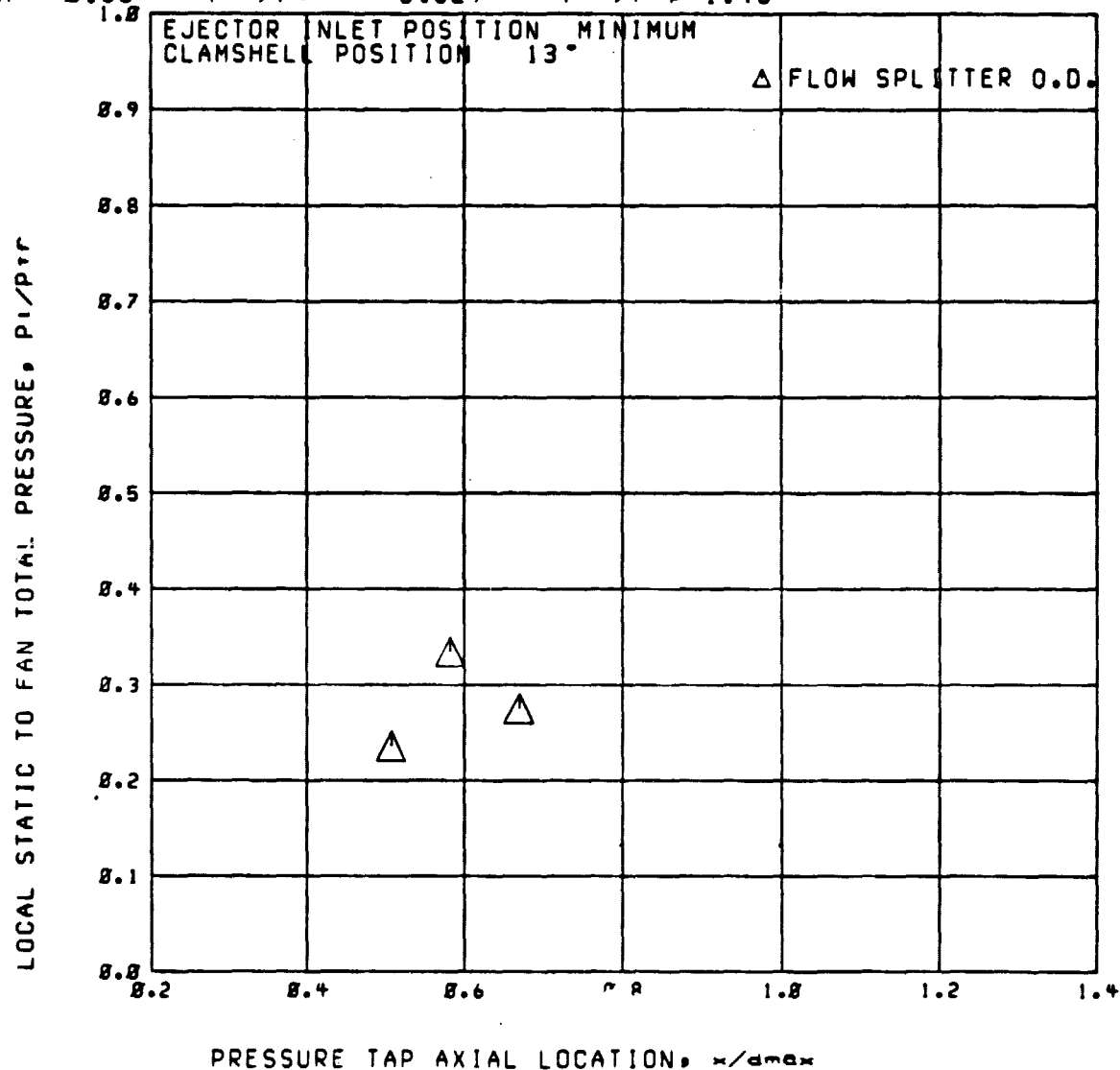
Run 28

C33

RDG=1676

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 3.629$   $P_{tr}/P_{tp} = 1.45$



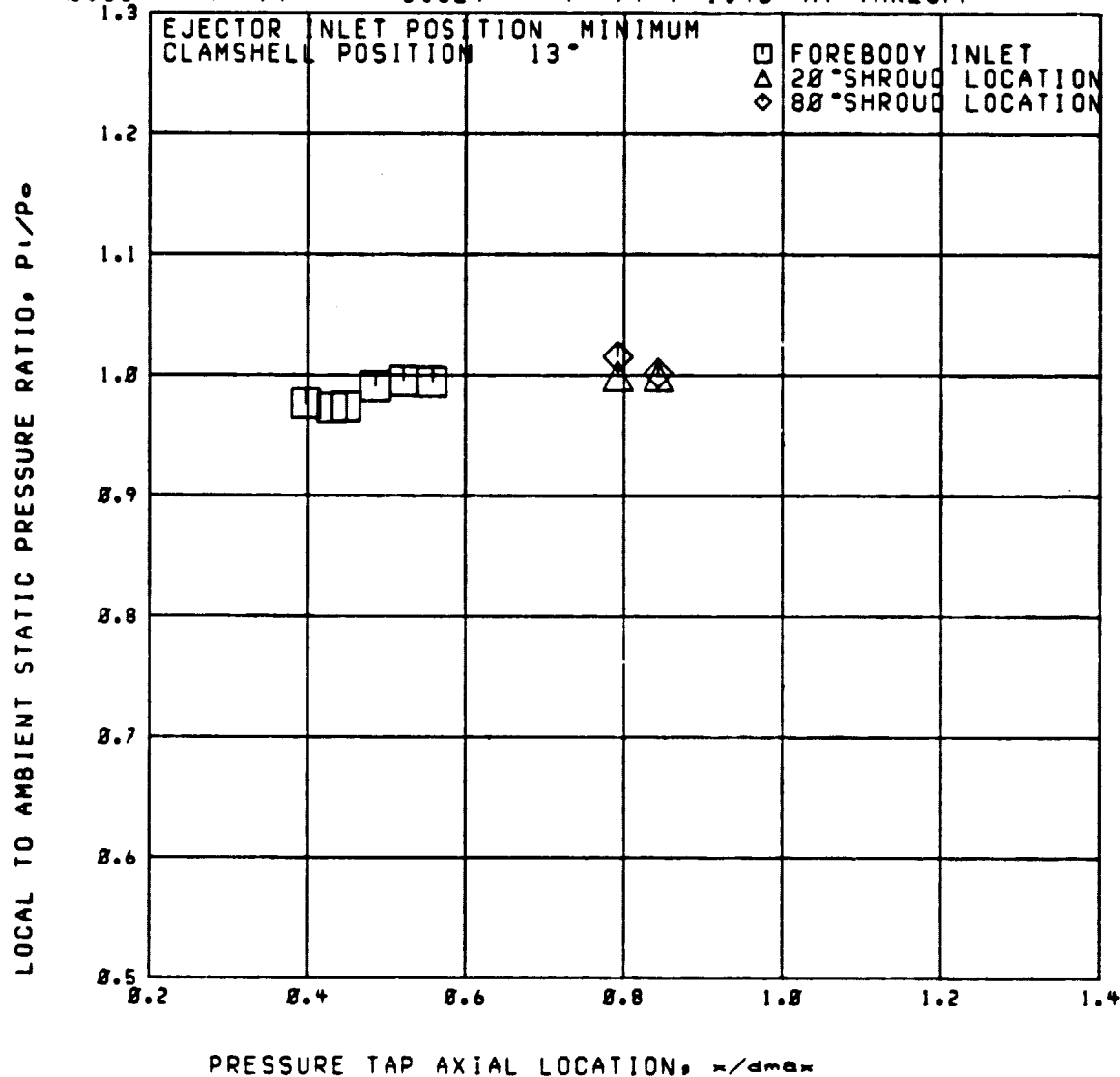
Run 28

ROG=1676

C33

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$      $P_{tr}/P_0 = 3.629$      $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



Run 23

RDG=1677

C33

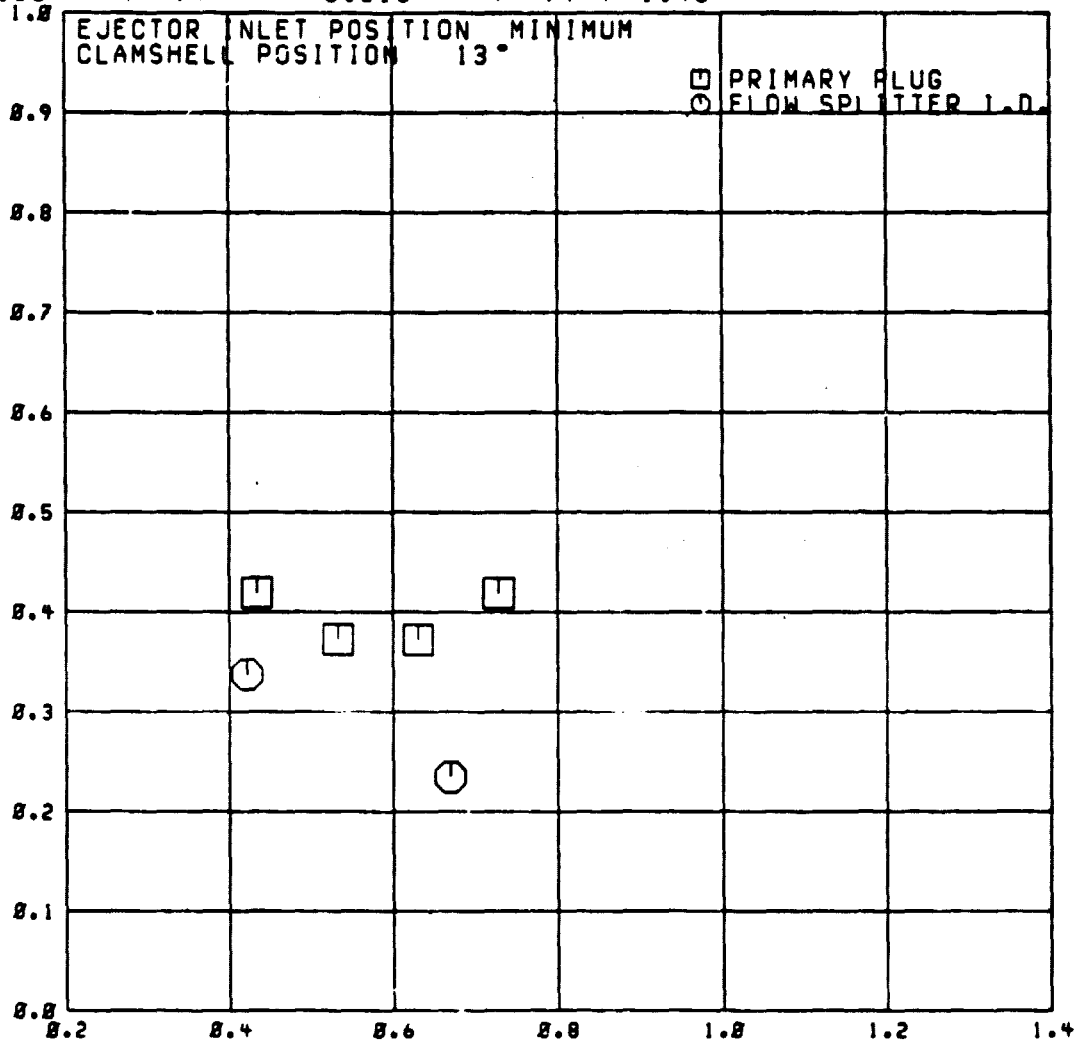
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.36$

$P_{tr}/P_{02} = 3.815$

$P_{tr}/P_{trp} = 1.46$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{trp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

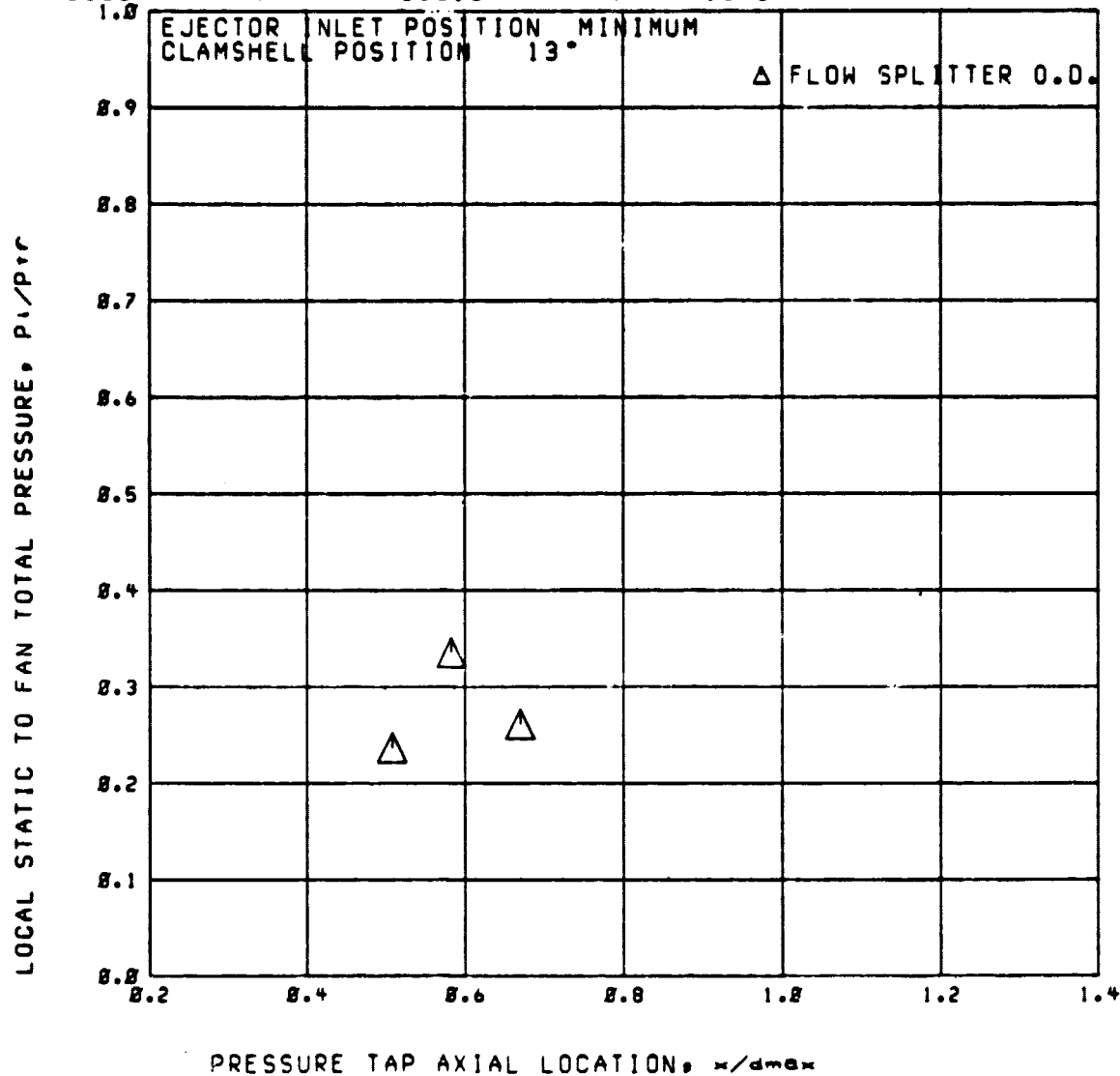
Run 28

RDG=1677

C33

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{1c}/P_0 = 3.815$   $P_{1c}/P_{1p} = 1.46$



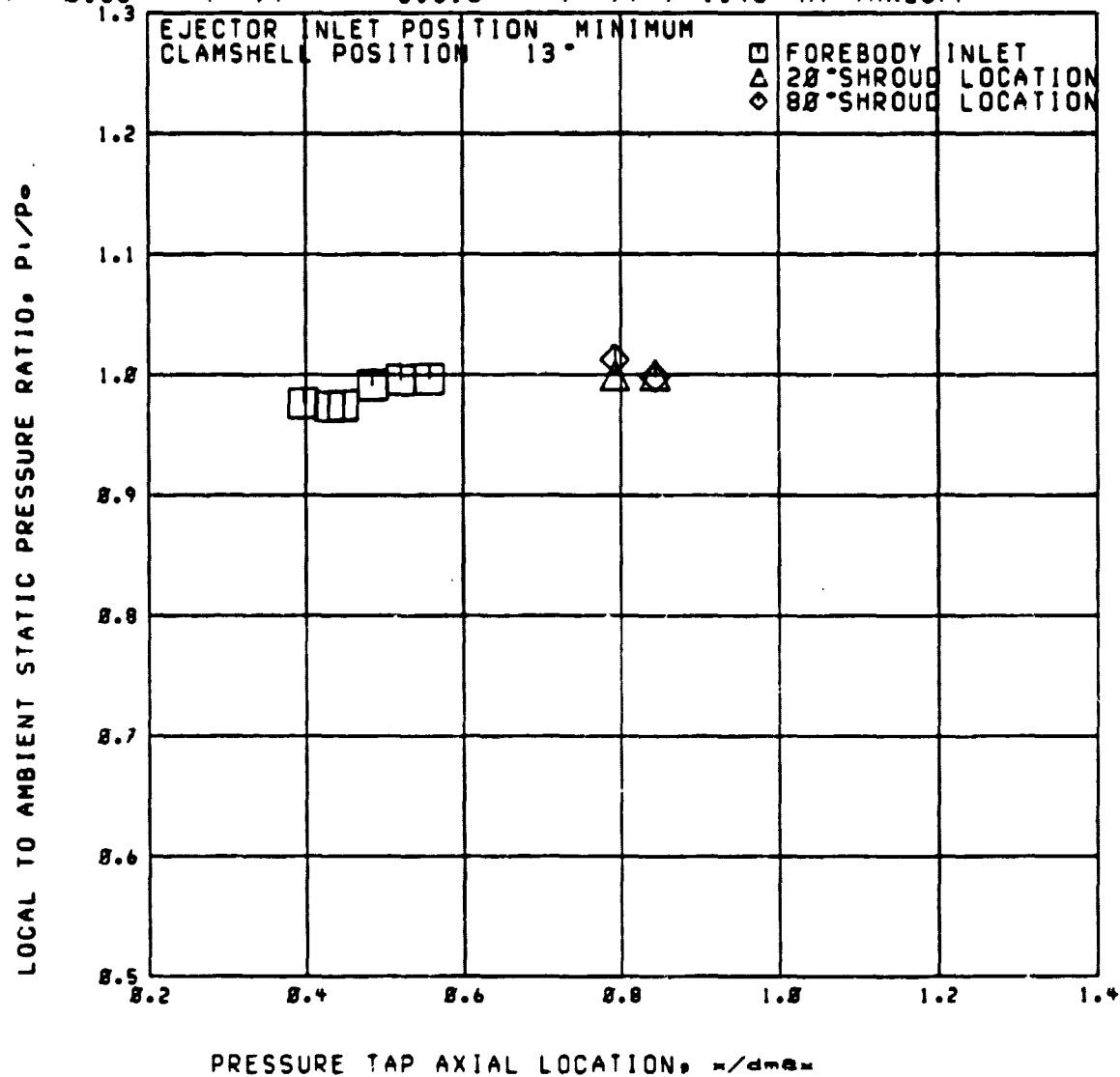
RUN 28

RDG=1677

C33

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_\infty = 0.36$   $P_{t0}/P_\infty = 3.815$   $P_{t0}/P_{t0} = 1.46$  AT TAKEOFF

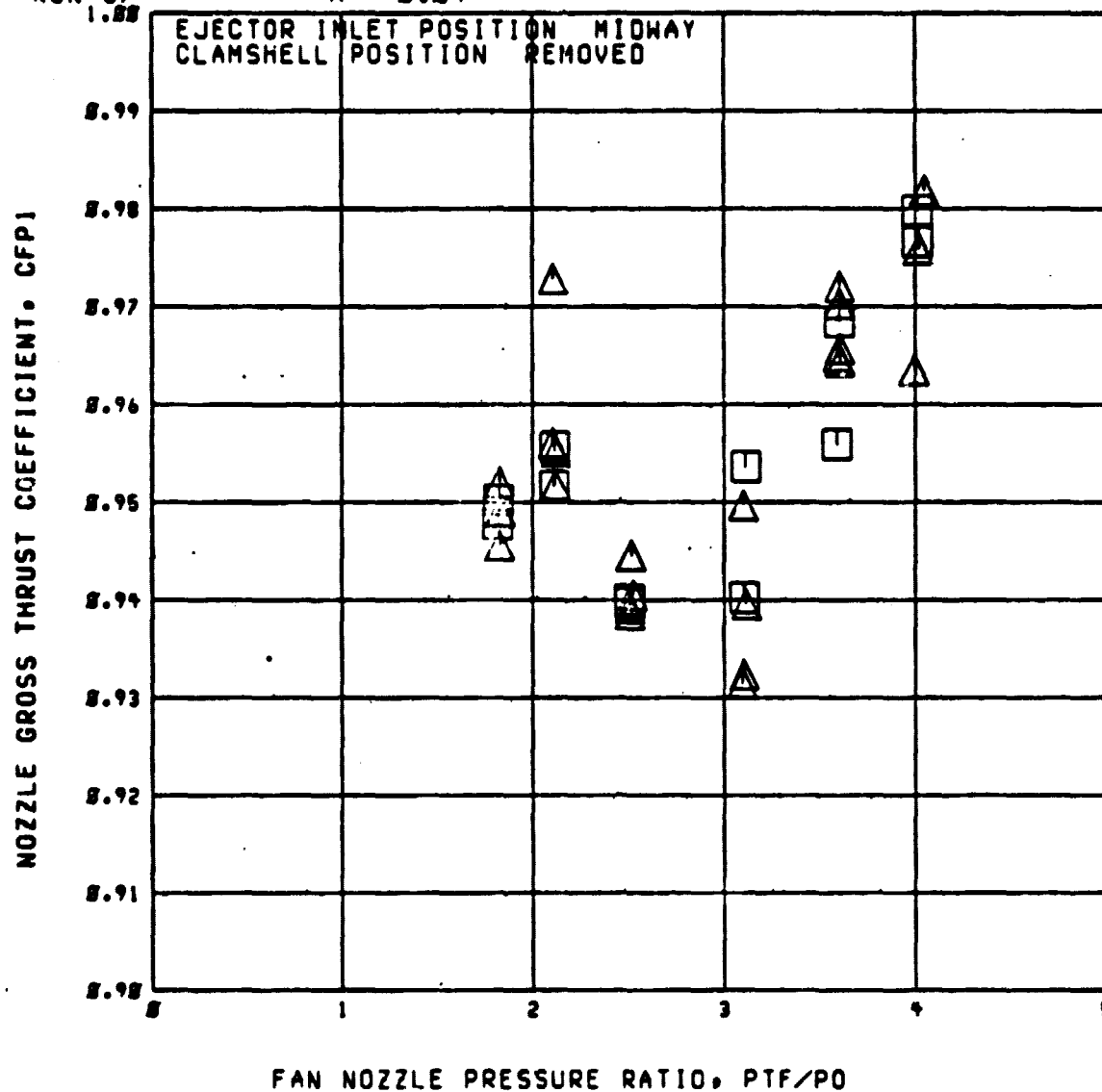


ROG. 2592-2627

C3  
TAKEOFF  
RUN 57

$M = 2.84$

$P_{T0}/P_{T\infty} = \square = 1.46$   
 $\Delta = 1.78$



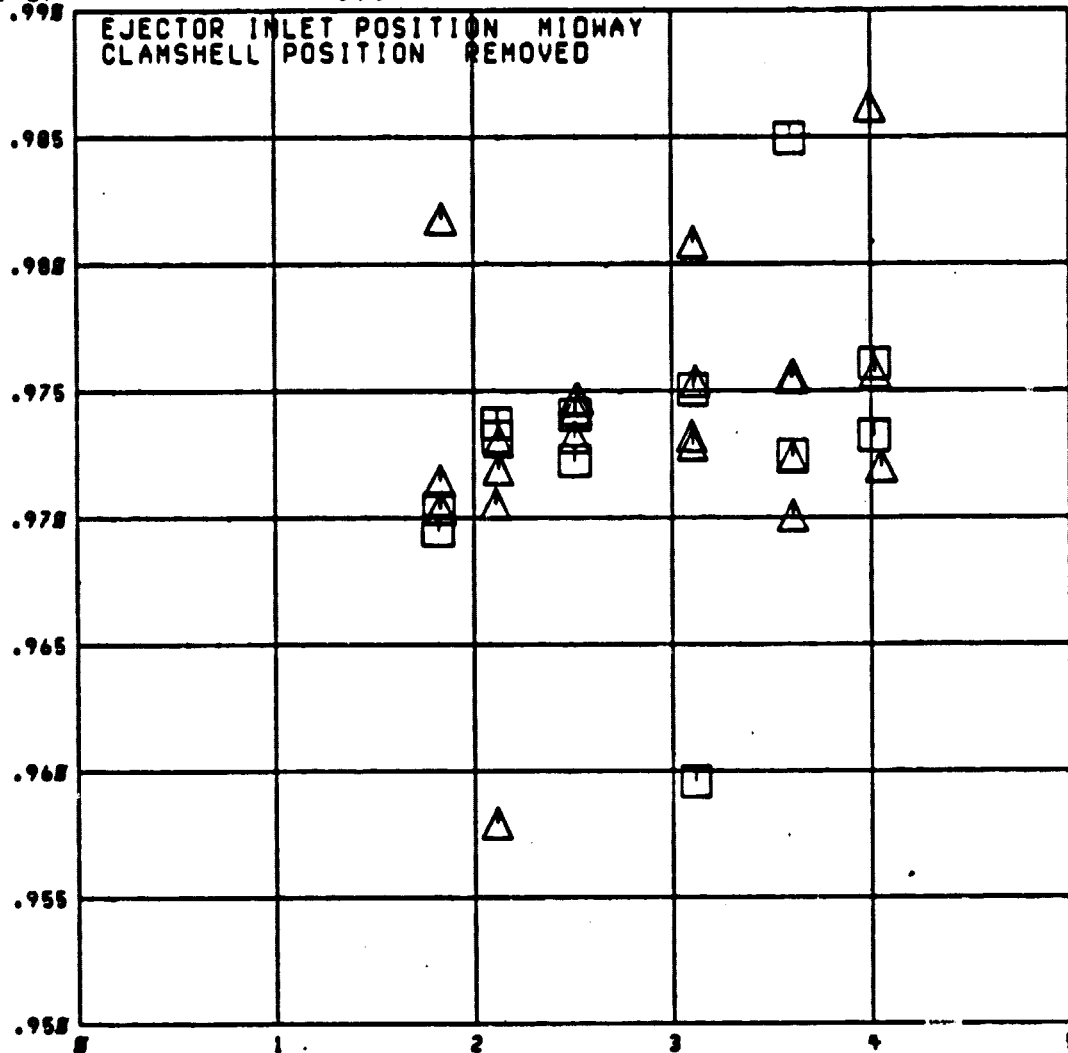
Req. 2592-2627

C3  
TAKEOFF  
RUN 57

$M = 2.84$

$P_{1C}/P_{1D} = \square = 1.46$   
 $\Delta = 1.78$

FAN-NOZZLE FLOW COEFFICIENT, CCF



FAN NOZZLE PRESSURE RATIO, PTF/PO



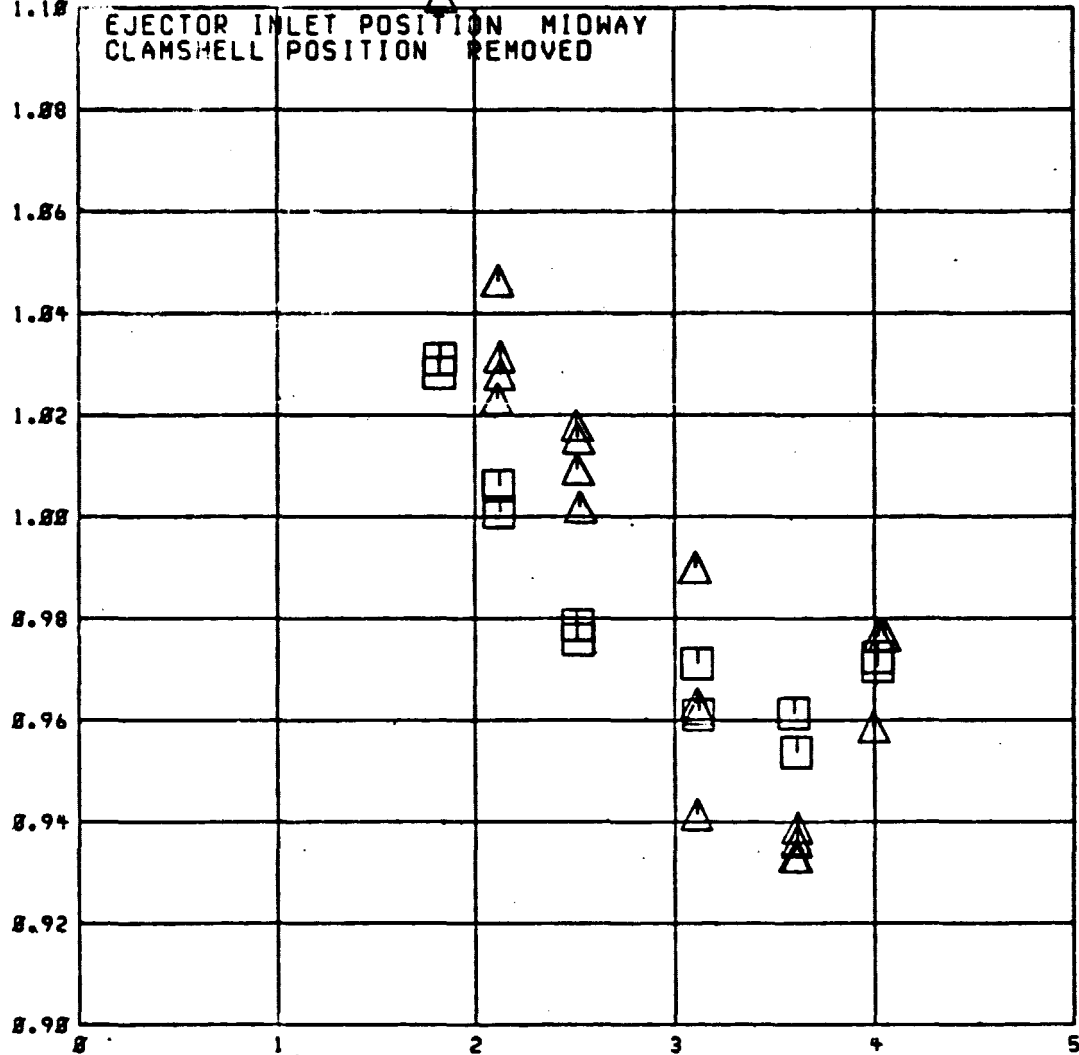
RDG. 2592-2627

C3  
TAKEOFF  
RUN 57

$M_0 = 0.84$

$P_{T0}/P_{T2} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP



FAN NOZZLE PRESSURE RATIO,  $P_{TF}/P_0$

RUN 57

RDG=2616

C3

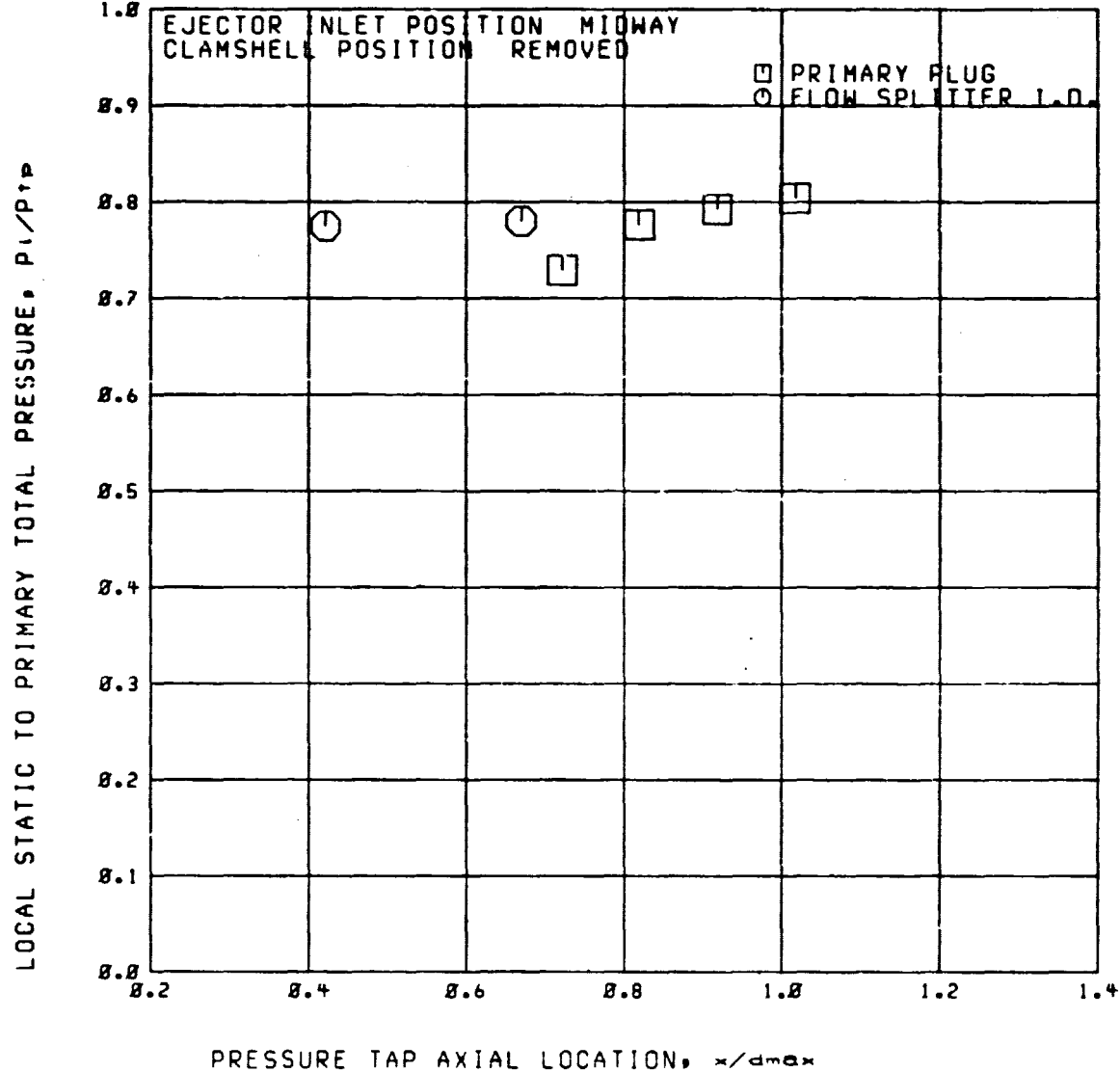
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.82$

$P_{tr}/P_o =$

1.828

$P_{tr}/P_{tp} = 1.47$



RUN 57

RDG=2616

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

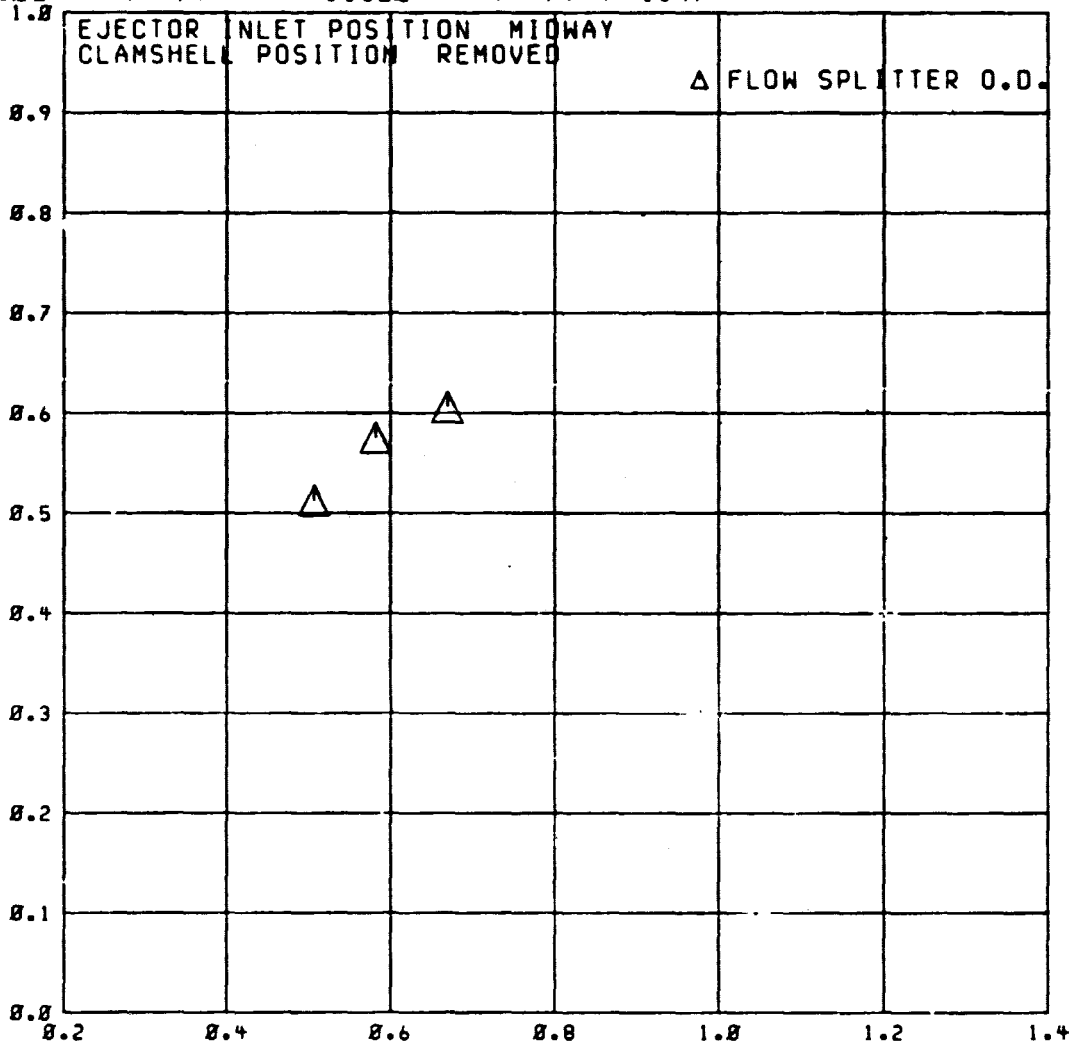
$M_0 = 0.82$

$P_{tr}/P_0 =$

1.820

$P_{tr}/P_{tp} = 1.47$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

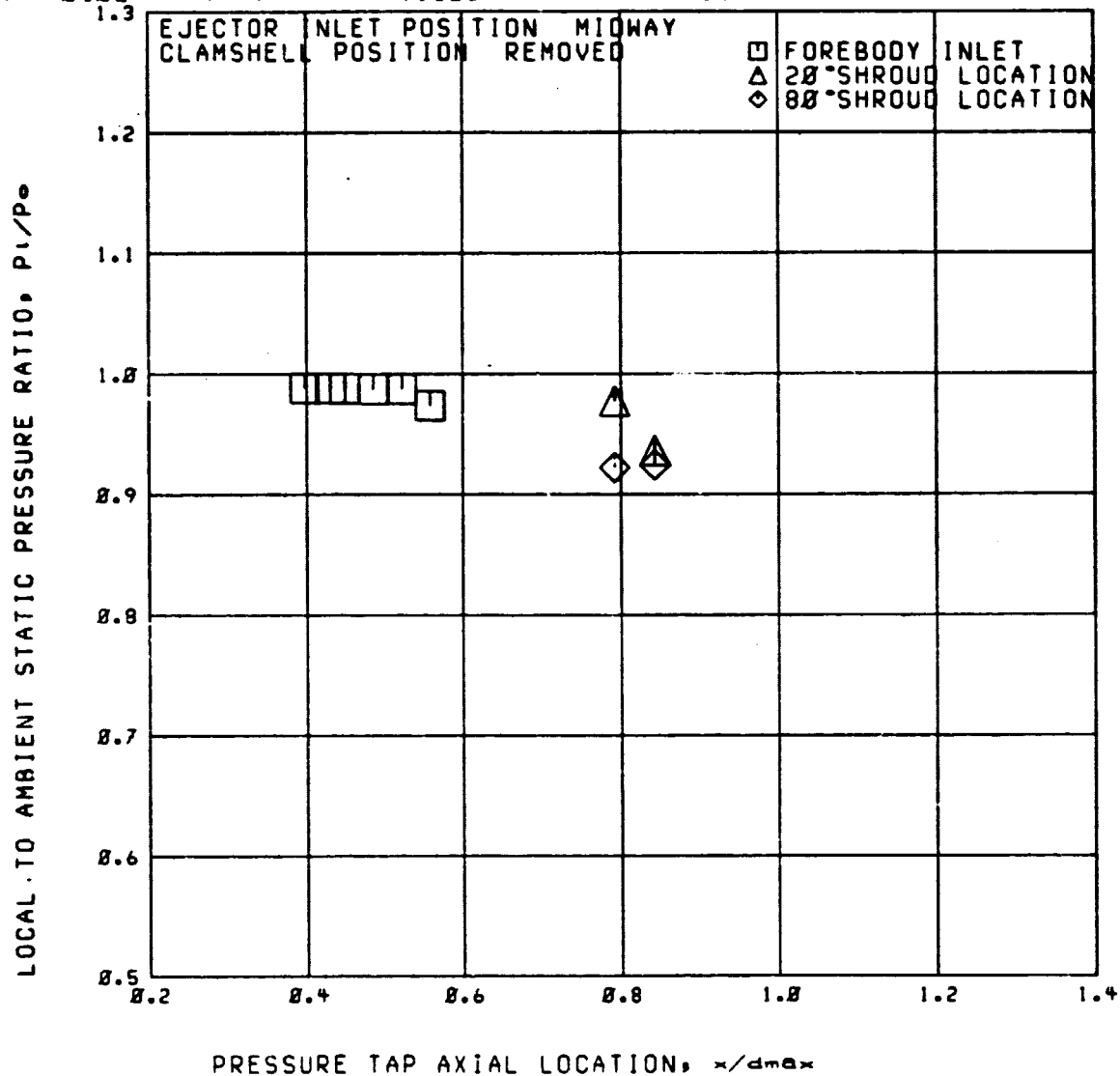
RUN 57

RDG=2616

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.82$   $P_{tr}/P_o = 1.820$   $P_{tr}/P_{tr} = 1.47$  AT TAKEOFF



Run 57

RDG=2617

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.83$

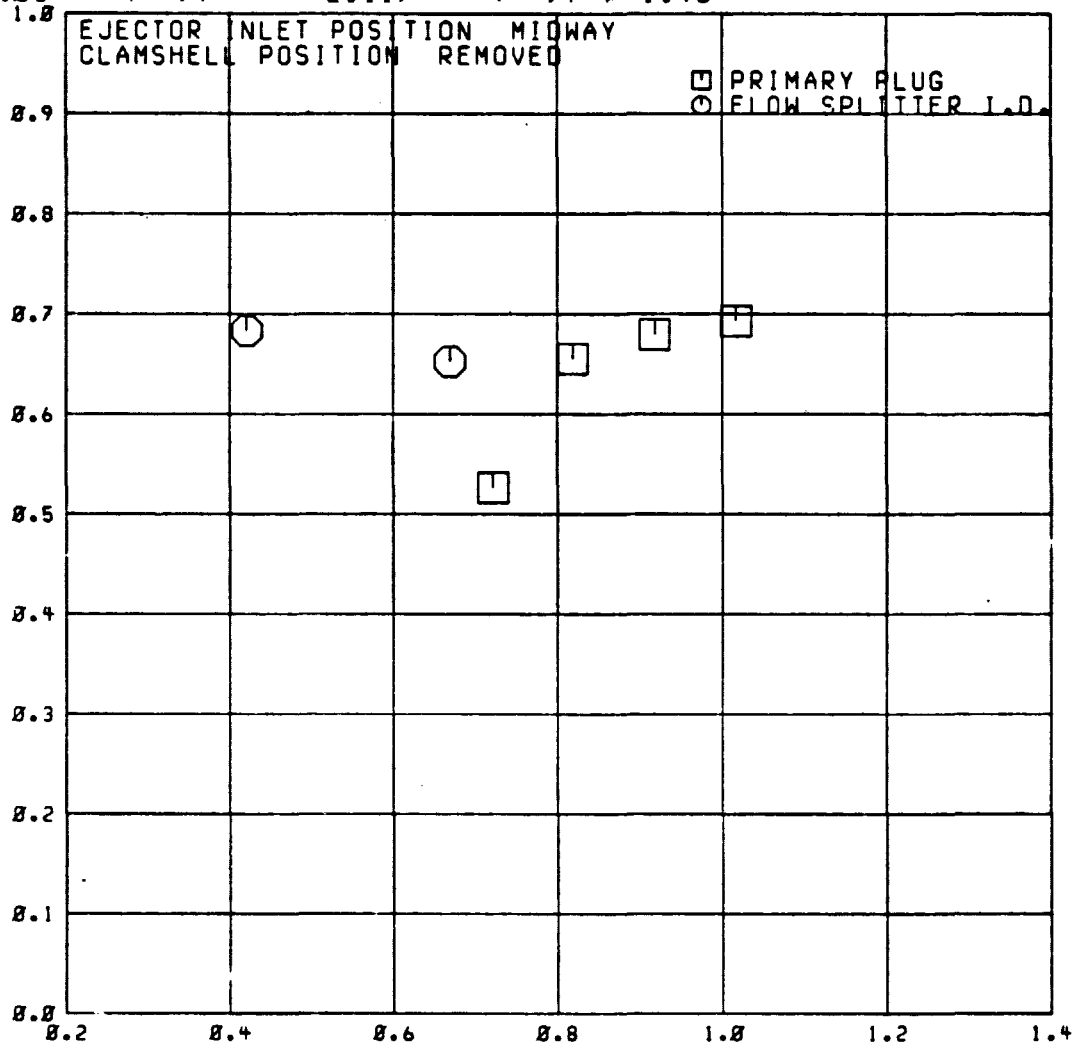
$P_{tr}/P_0 =$

2.117

$P_{tr}/P_{tp} =$

1.45

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_t/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

ORIGINAL PAGE 1  
OF FOUR (100%)

Run 57

RDG=2617

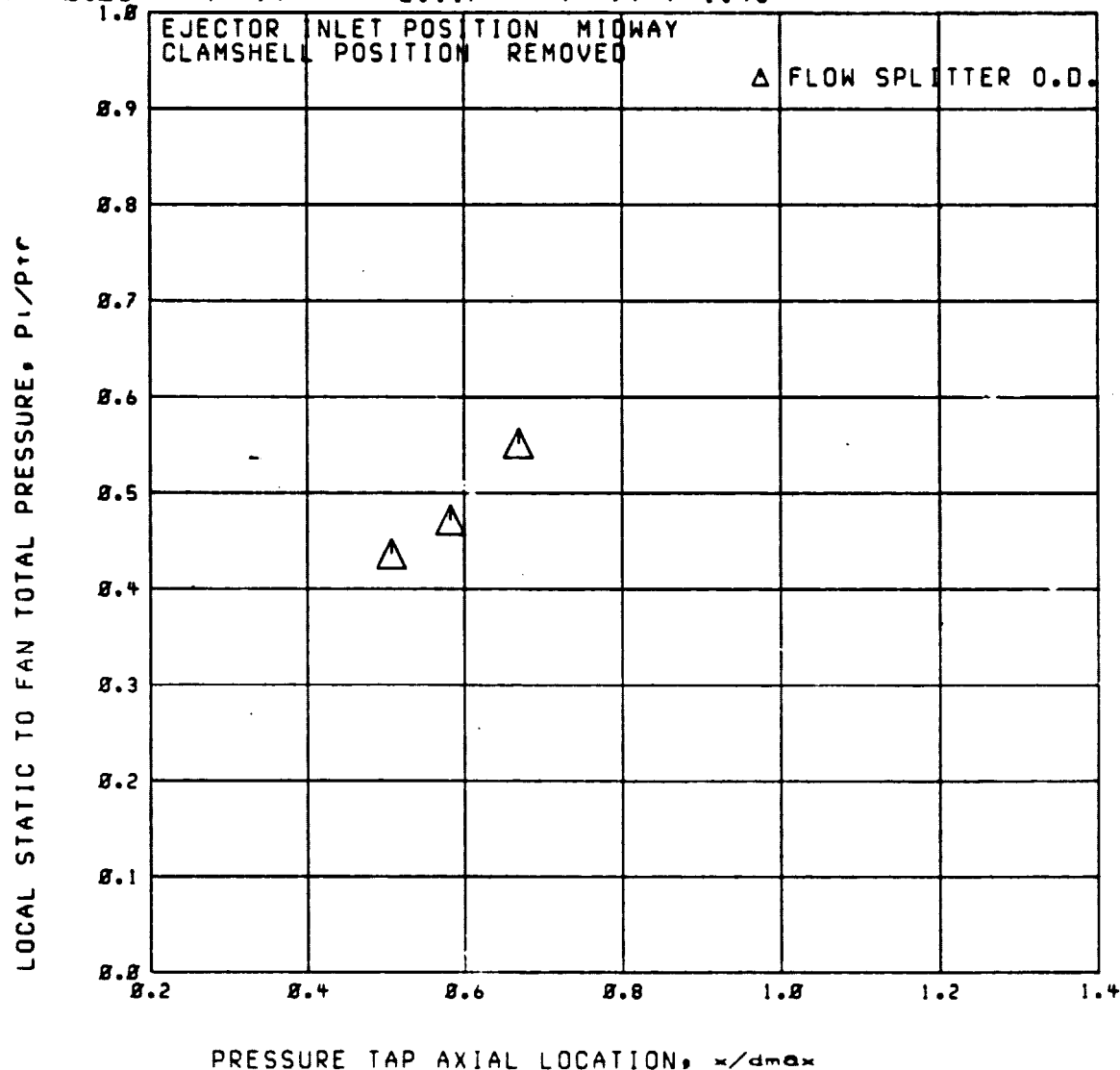
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.83$

$P_{tr}/P_0 = 2.117$

$P_{tr}/P_{tr0} = 1.45$



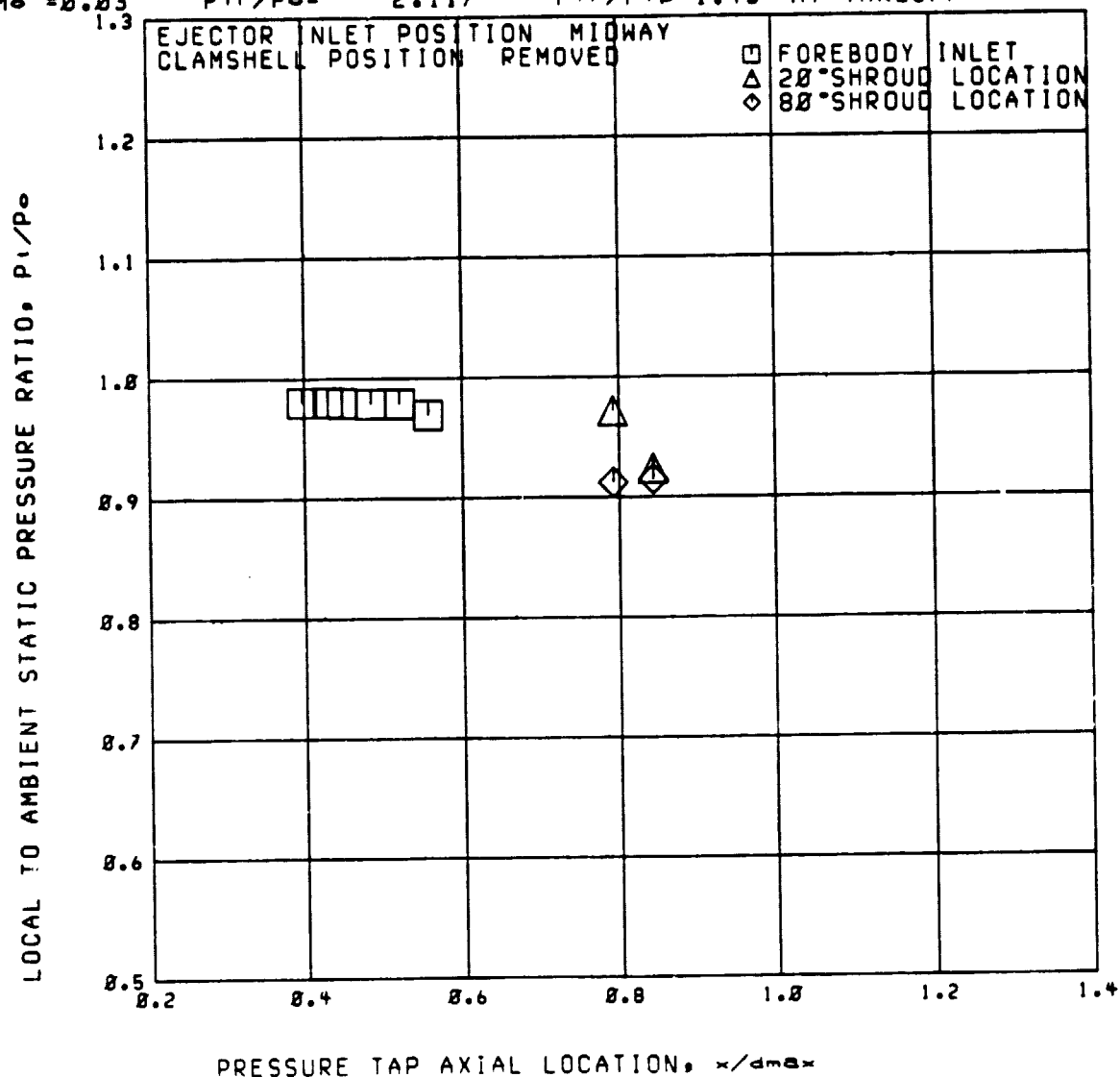
RUN 57

RDG=2617

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.83$   $P_{t0}/P_0 = 2.117$   $P_{t0}/P_{t0} = 1.45$  AT TAKEOFF



RUN 57

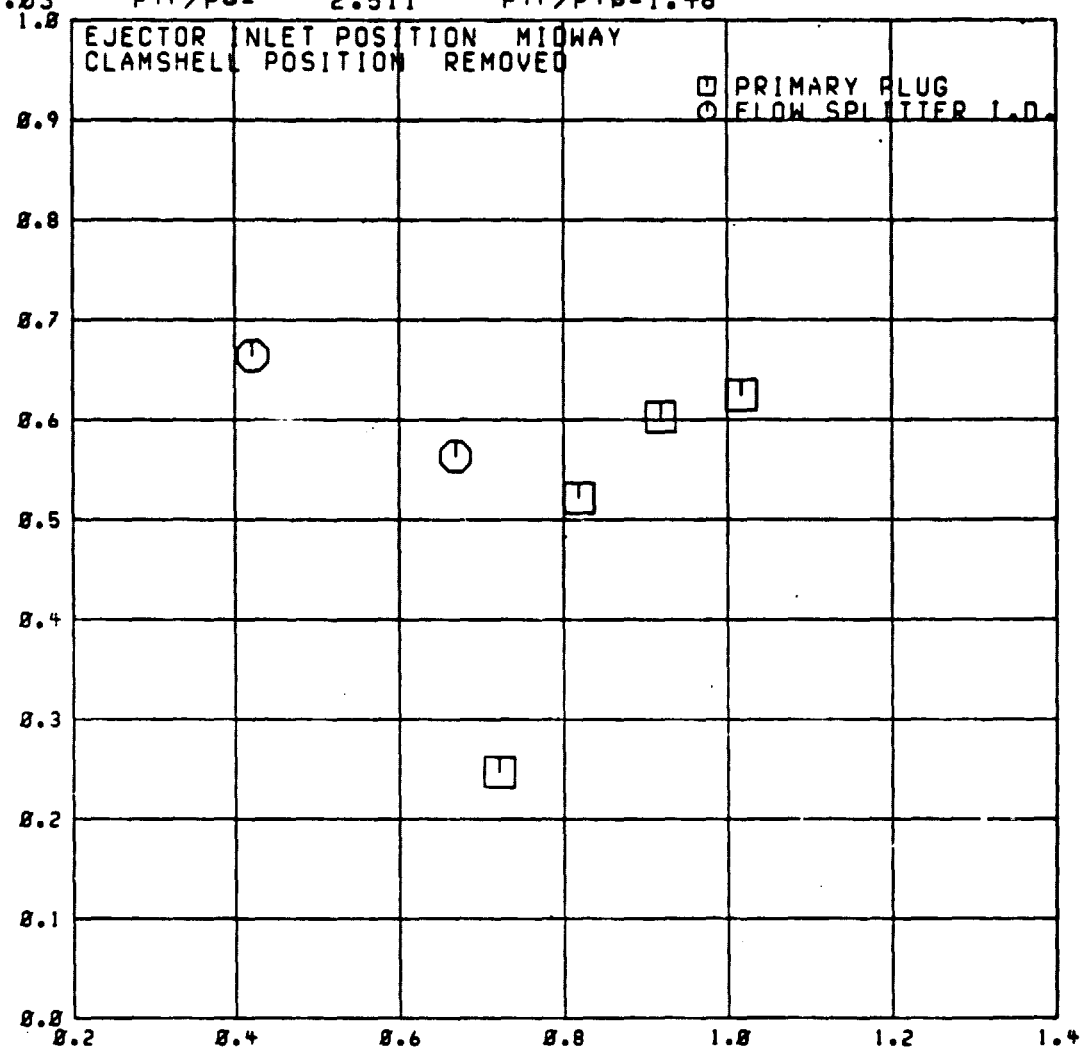
ROG=2618

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.83$   $P_{ir}/P_0 = 2.511$   $P_{ir}/P_{rp} = 1.46$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{rp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$



Run 57

RDG=2618

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

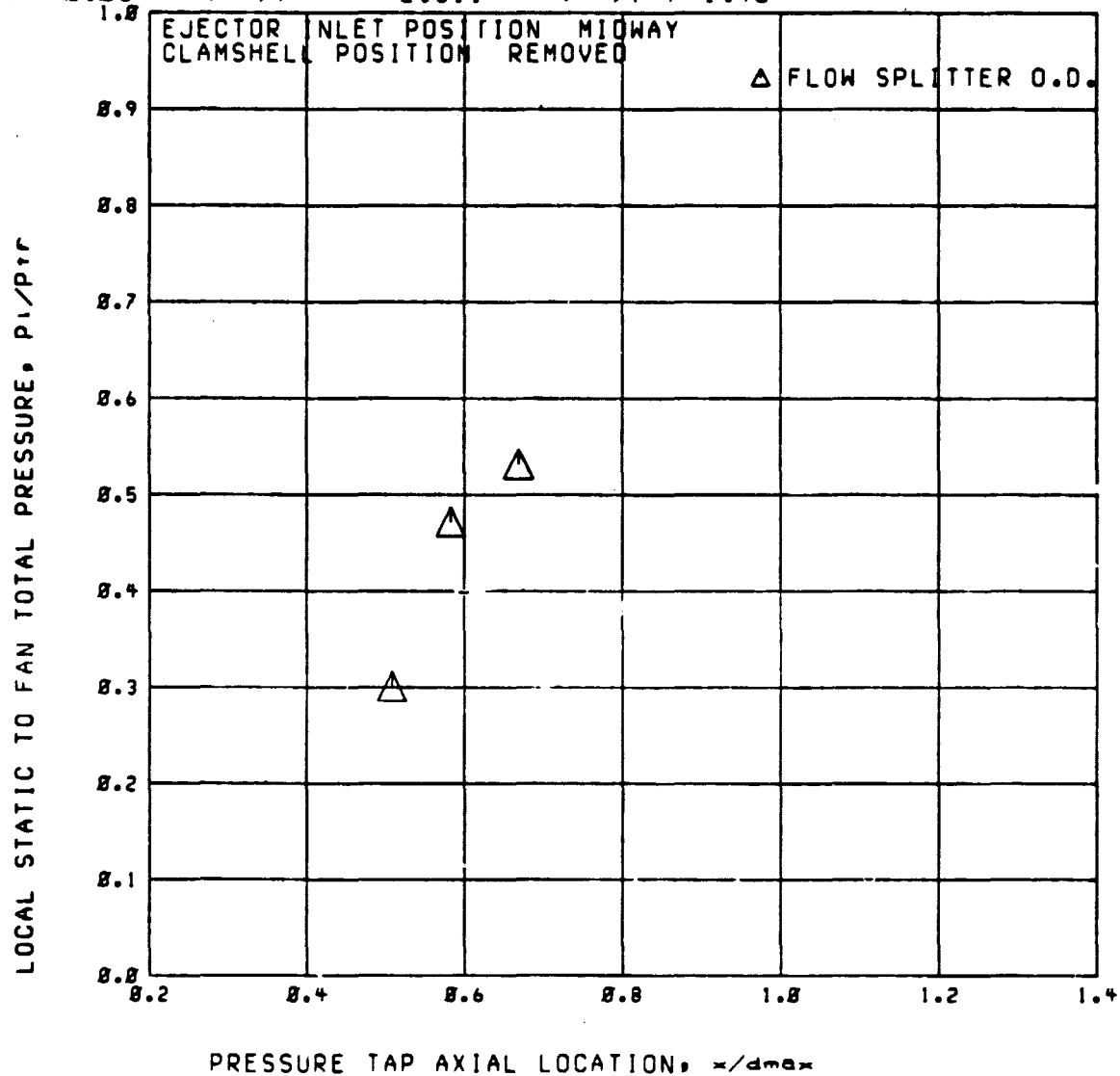
$M_0 = 0.03$

$P_{tr}/P_0 =$

2.511

$P_{tr}/P_{tr0} =$

1.46



RUN 57

RDG=2618

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.83$

$P_{tr}/P_o =$

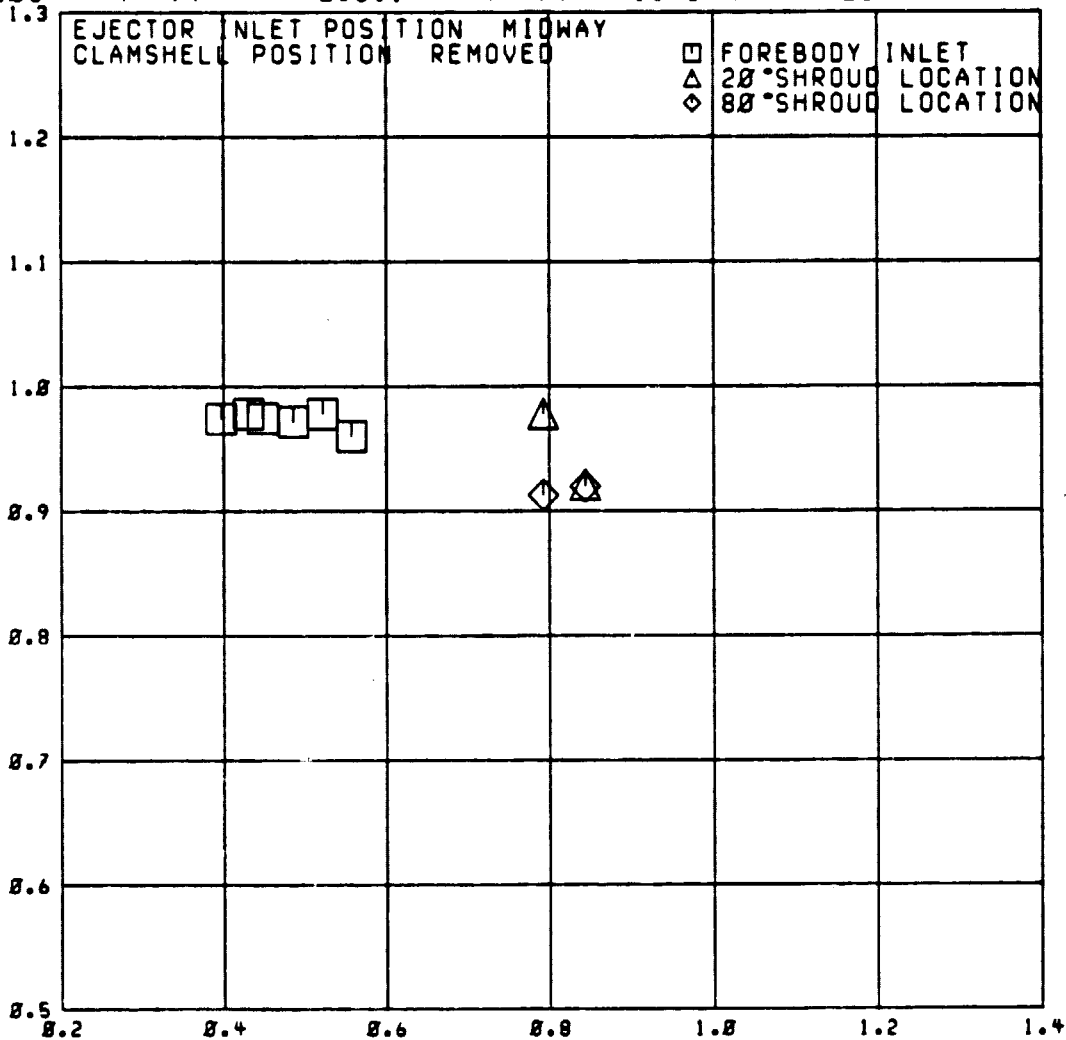
2.511

$P_{tr}/P_{tr} =$

1.46

AT TAKEOFF

LOCAL TO AMBIENT STATIC PRESSURE RATIO,  $P_i/P_o$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

Run 57

RDG=2619

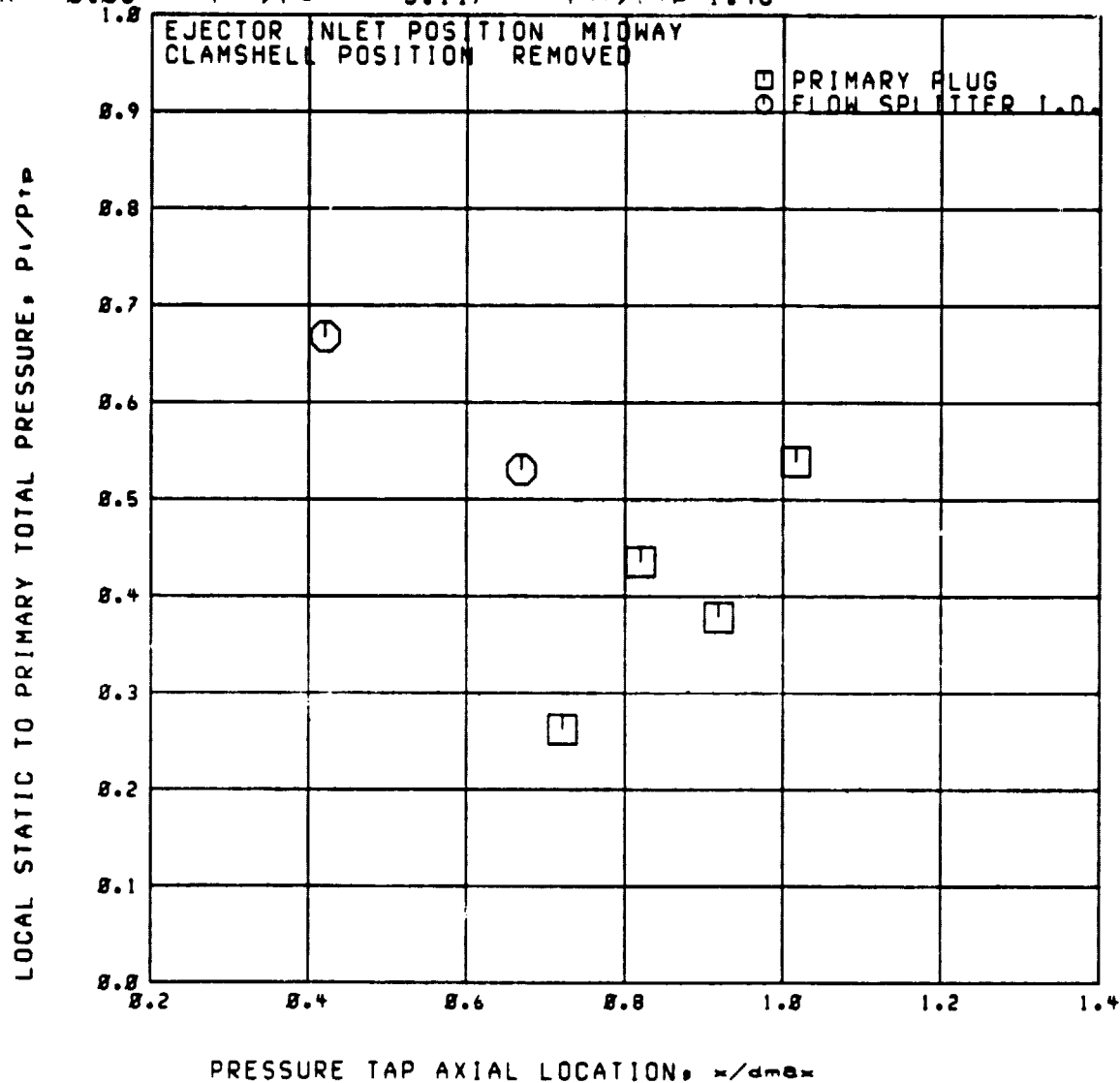
C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.85$

$P_{tr}/P_{0e} = 3.117$

$P_{tr}/P_{tp} = 1.48$



RUN 57

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

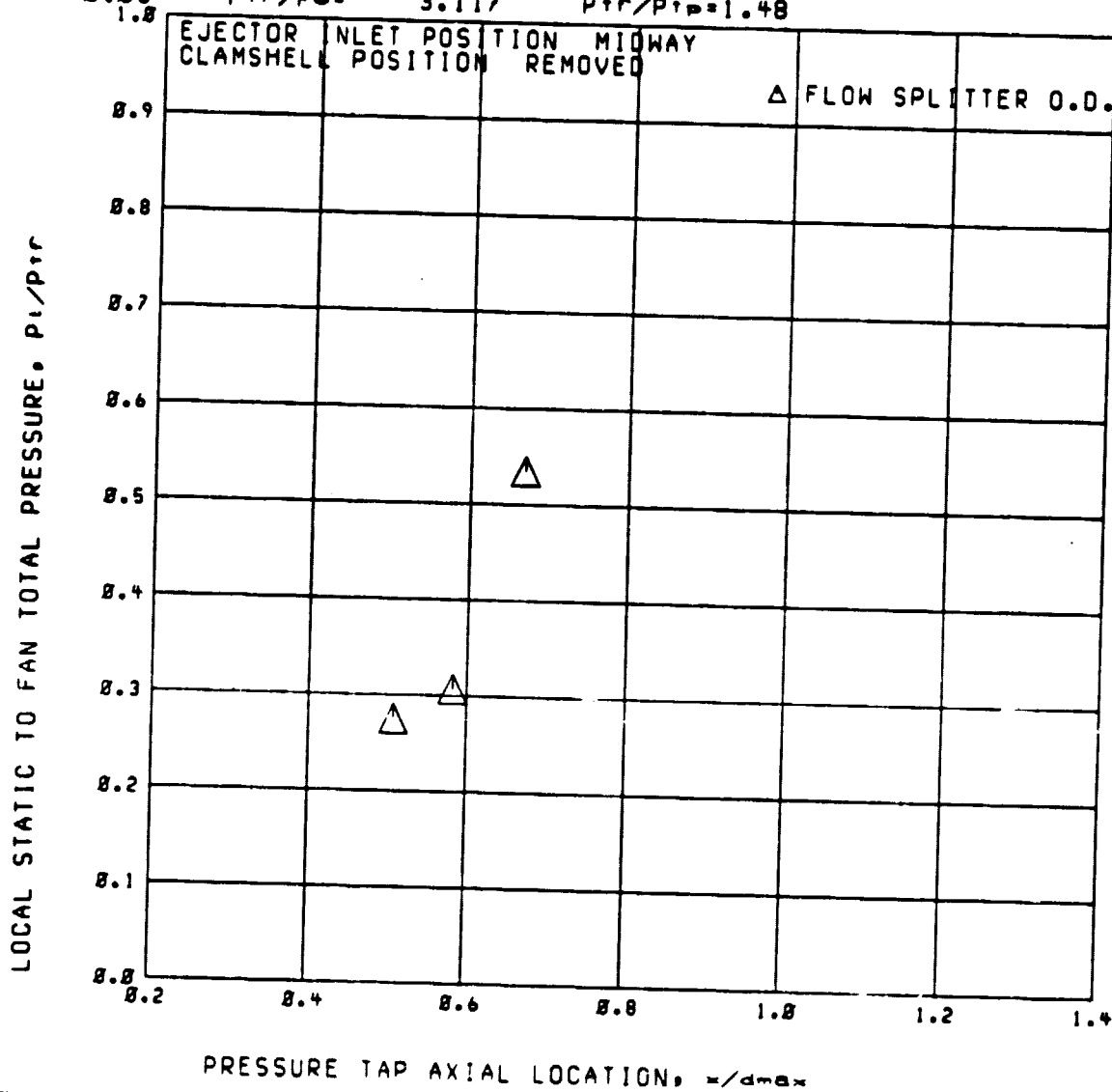
RDG=2619

$M_0 = 0.05$

$P_{tr}/P_0 =$

3.117

$P_{tr}/P_{tr} = 1.48$



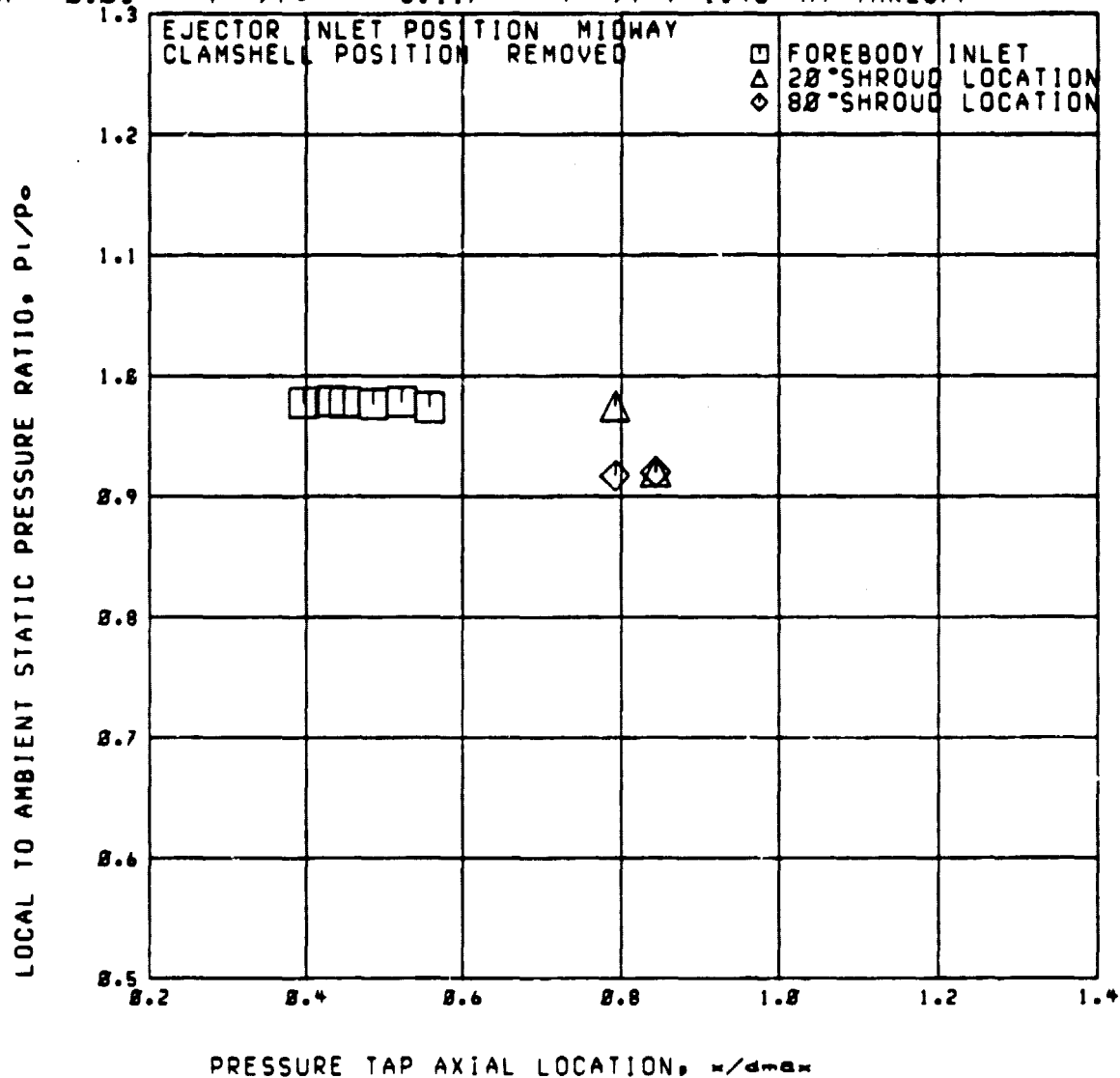
Run 57

RDG=2619

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M = 0.05$   $P_{1c}/P_o = 3.117$   $P_{1c}/P_{1e} = 1.48$  AT TAKEOFF



Run 57

RDG=2628

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 2.85$

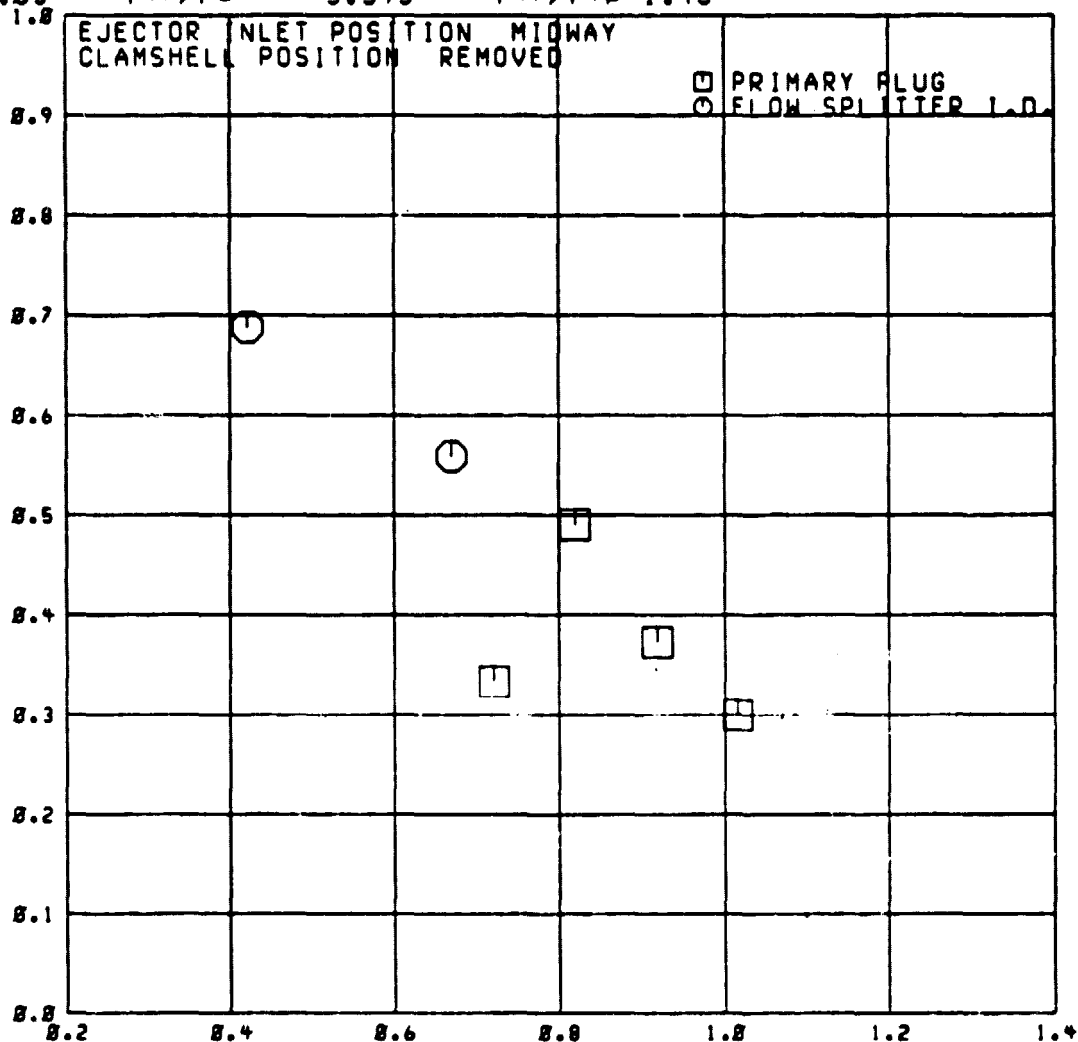
$P_{tr}/P_{os} =$

3.595

$P_{tr}/P_{tp} =$

1.46

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_t/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

Run 57

RDG=2628

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.85$

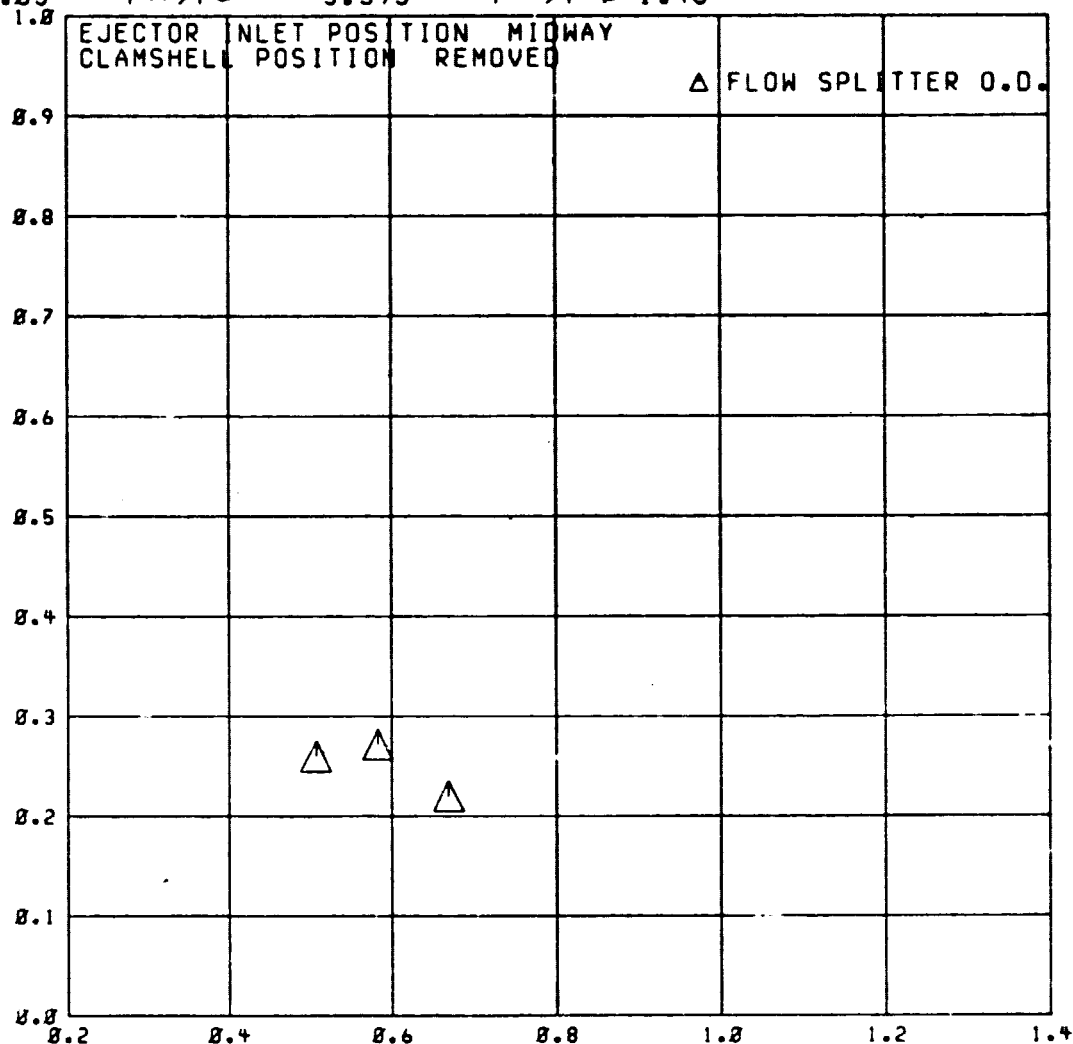
$P_{tr}/P_0 =$

3.595

$P_{tr}/P_{tr} =$

1.46

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_1/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

ORIGINAL PAGE 1  
OF FOUR QUALITY

RUN 57

RDG=2620

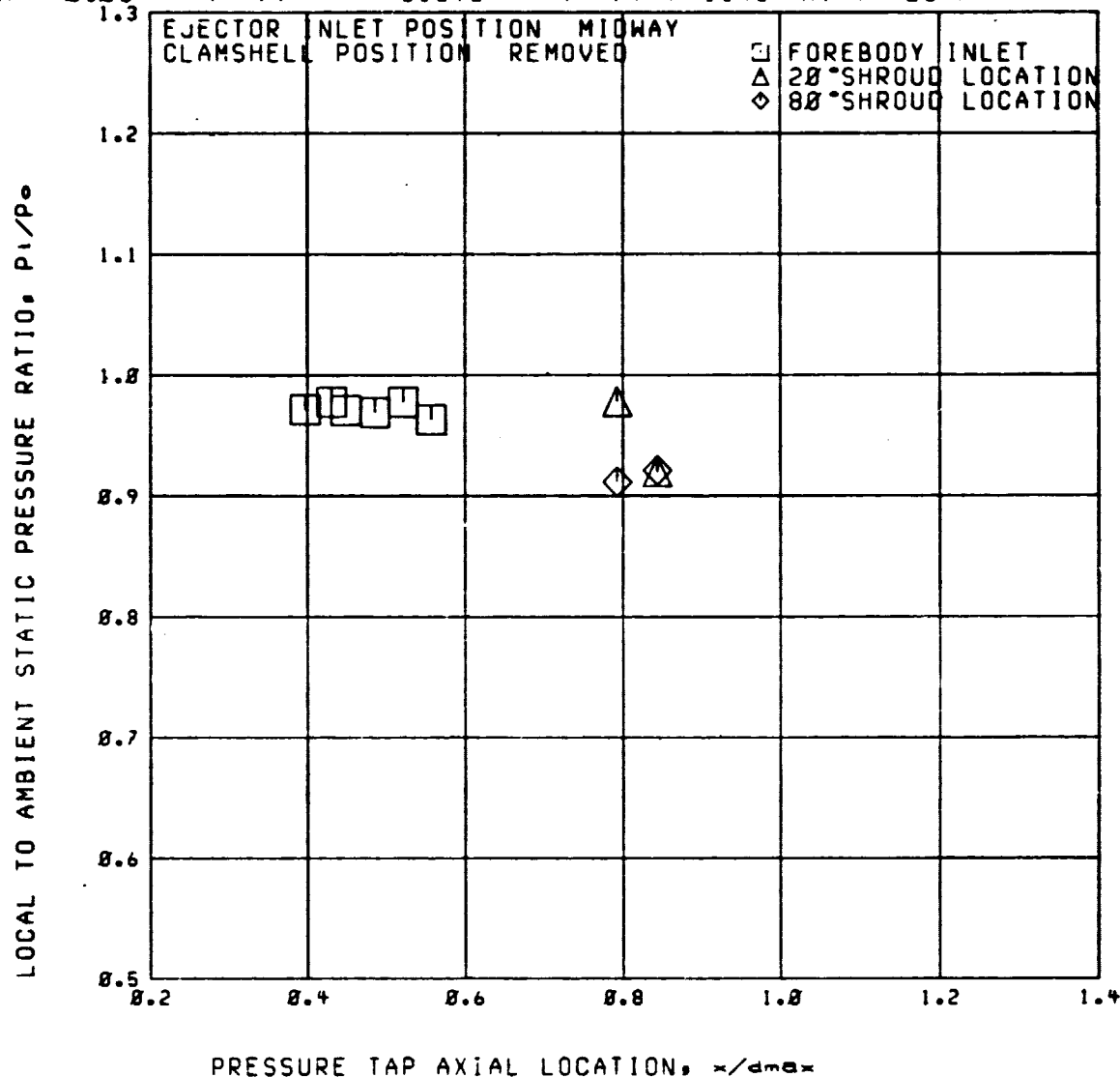
C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.85$

$P_{tr}/P_o = 3.595$

$P_{tr}/P_{tr} = 1.46$  AT TAKEOFF





Run 57

RDG=2621

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

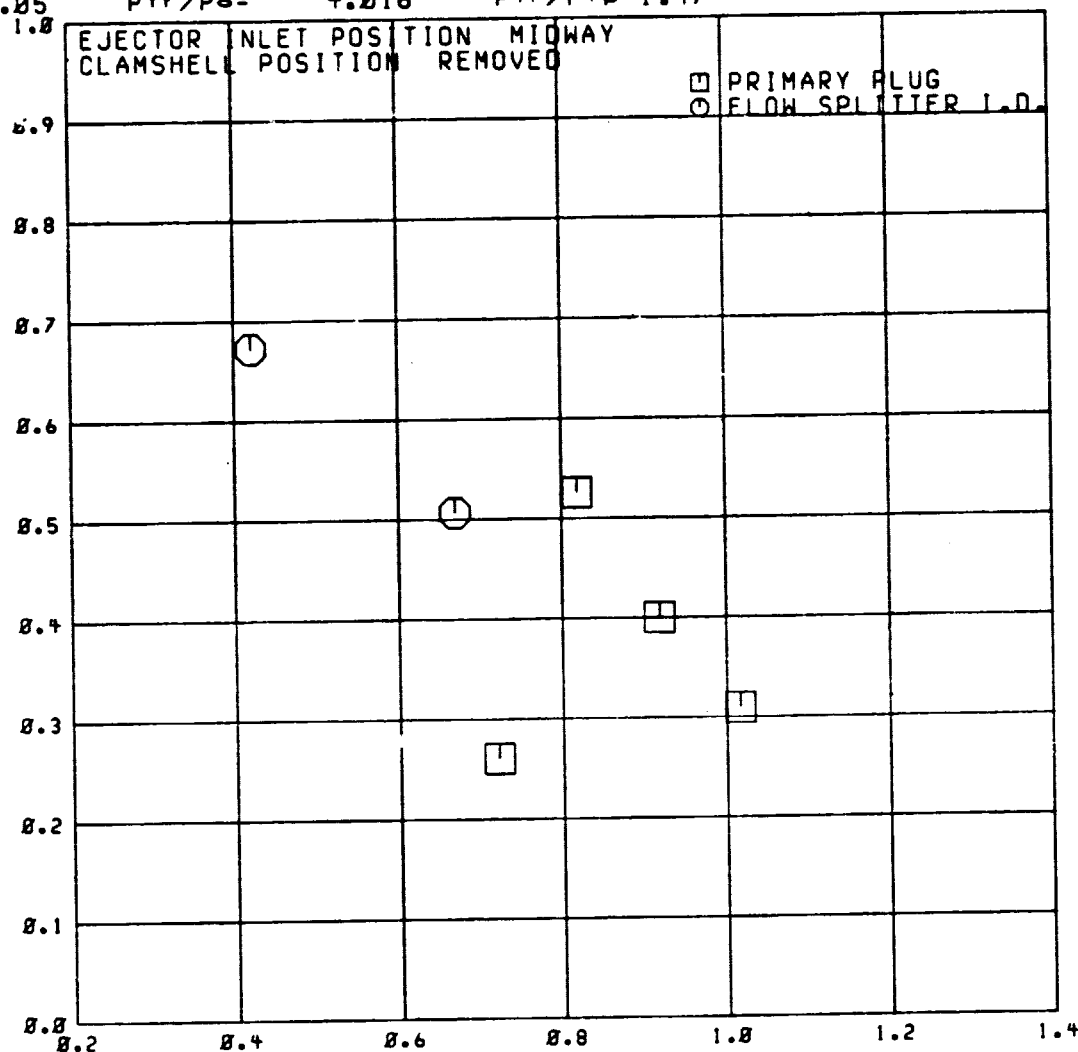
$M_0 = 0.85$

$P_{tr}/P_0 =$

4.016

$P_{tr}/P_{tp} = 1.47$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

Run 57

C3

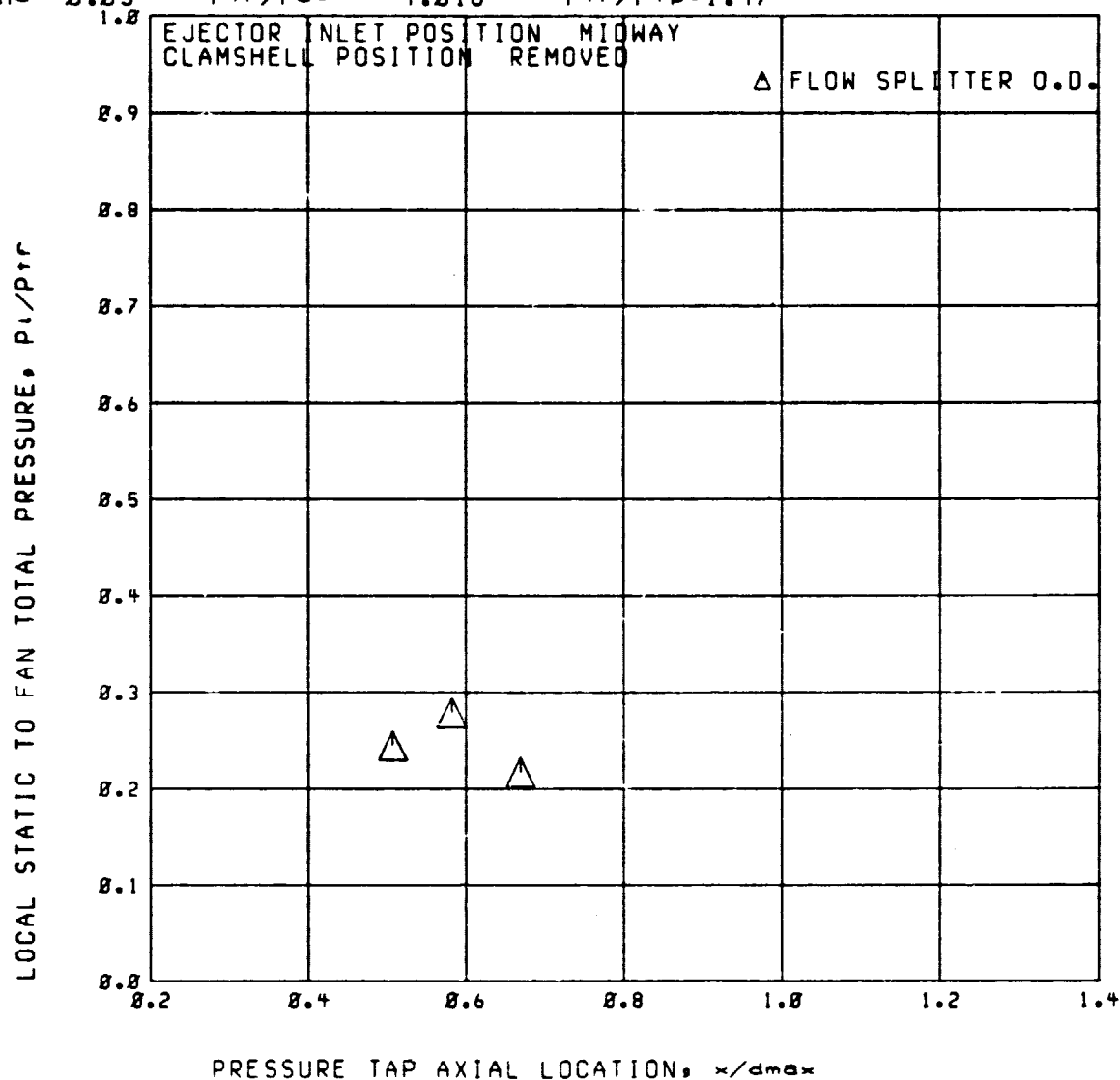
RDG=2621

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$

$P_{tr}/P_0 = 4.016$

$P_{tr}/P_{tp} = 1.47$



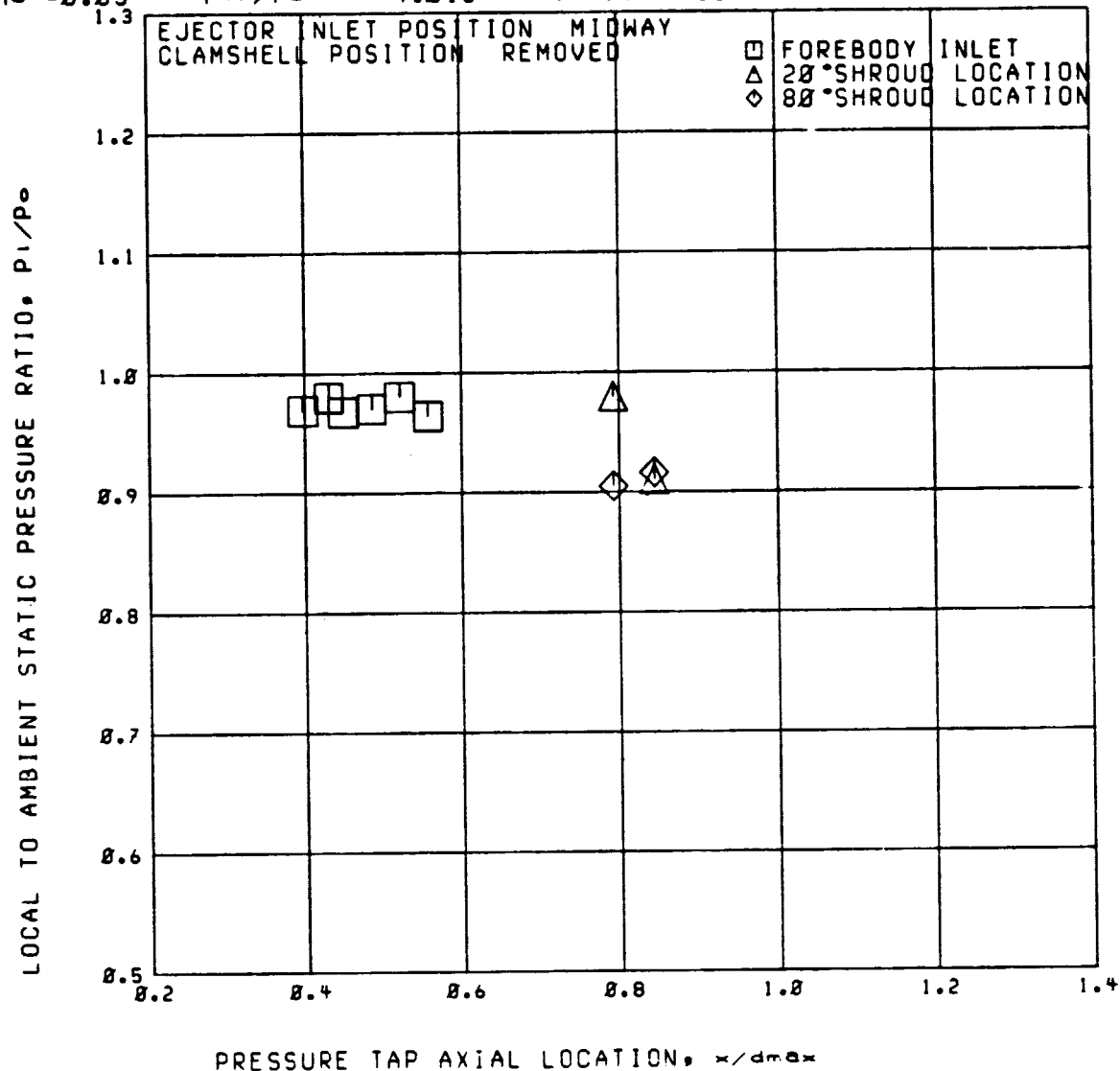
RUN 57

RDG=2621

C3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.05$        $P_{tr}/P_o = 4.016$        $P_{tr}/P_{tp} = 1.47$  AT TAKEOFF



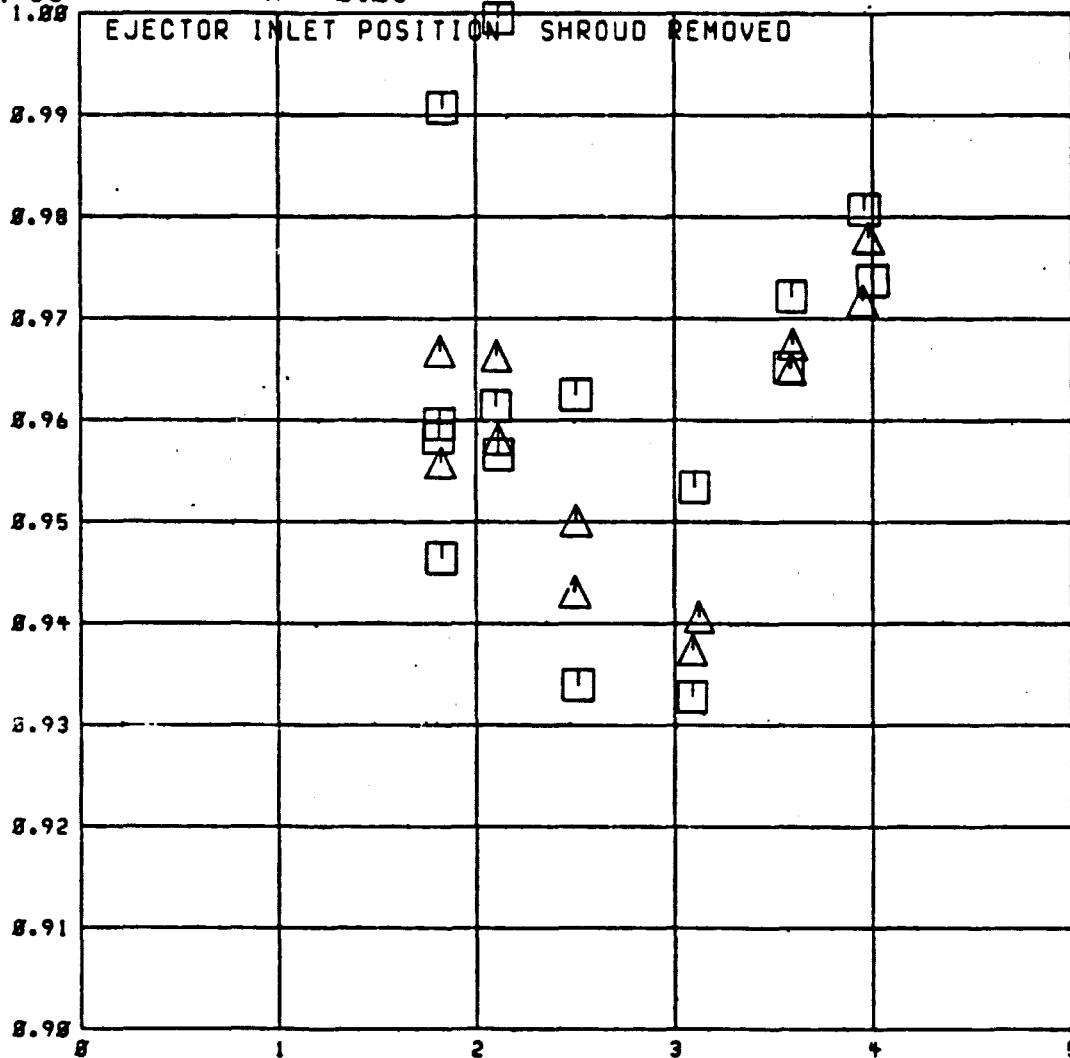
ROG 2628-2657

C3  
TAKEOFF  
RUN 58  
1.88

$M = 8.83$

$P_{t0}/P_{t2} = \square = 1.46$   
 $\Delta = 1.78$

NOZZLE GROSS THRUST COEFFICIENT,  $CFPI$



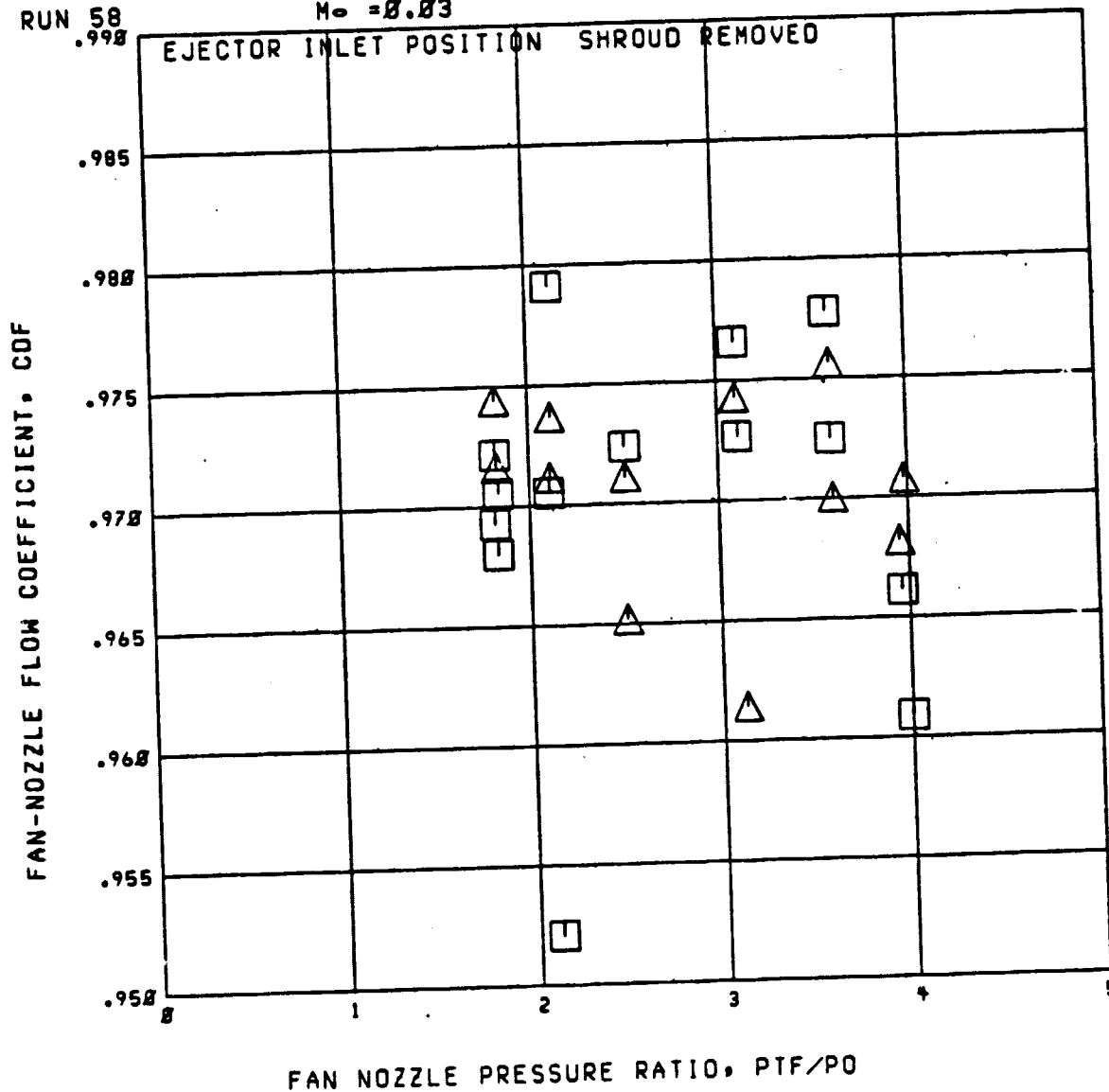
FAN NOZZLE PRESSURE RATIO,  $PTF/PO$

ROG. 2628-2657

C3  
TAKEOFF  
RUN 58

$M_0 = 0.83$

$P_{t1}/P_{t0} = \square = 1.46$   
 $\triangle = 1.78$



RDG 2628-2657

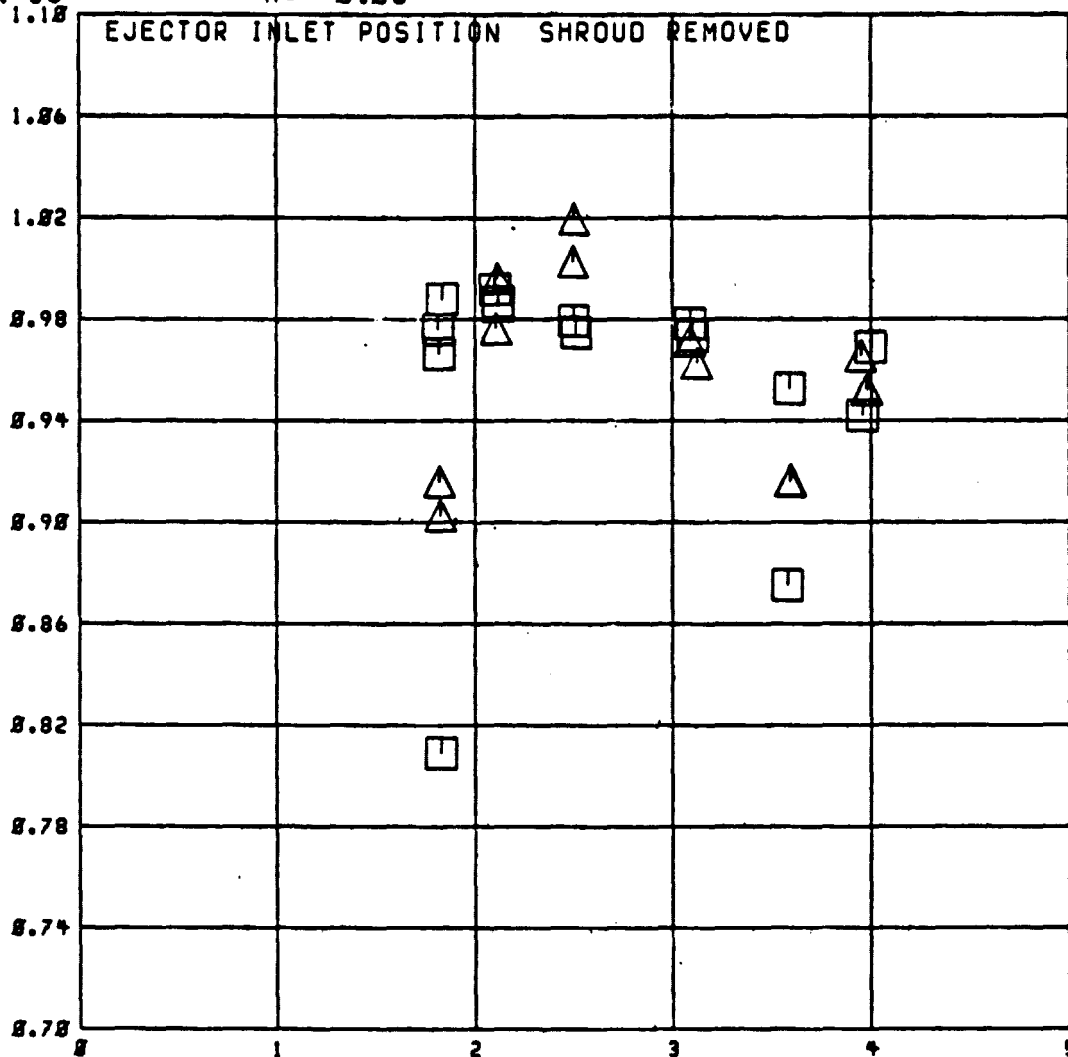
C3  
TAKEOFF

RUN 58  
1.18

$M = 0.83$

$P_{1C}/P_{1D} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP



FAN NOZZLE PRESSURE RATIO, PTF/PO

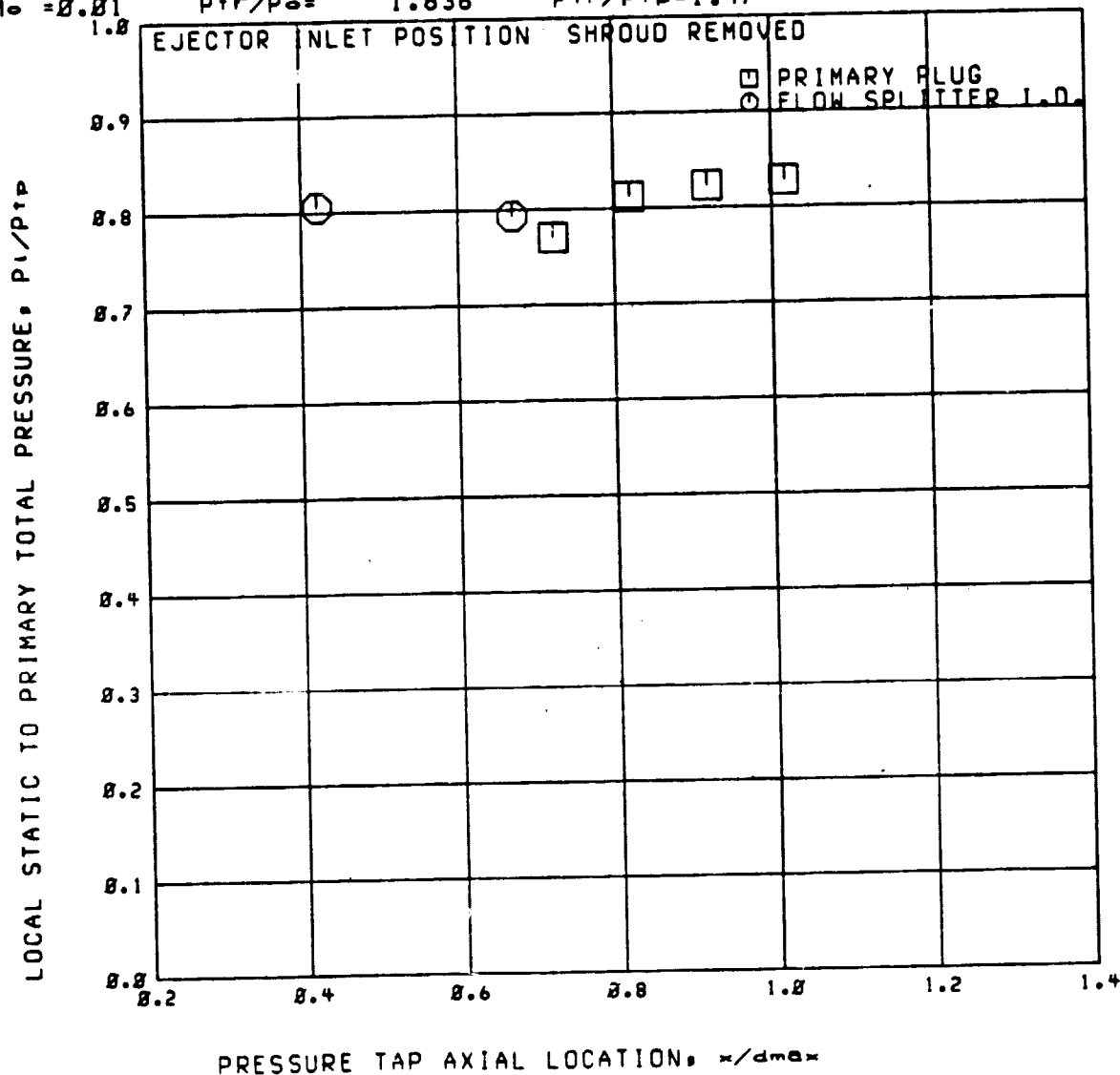
Run 58

RDG=2642

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.81$   $P_{tr}/P_0 = 1.836$   $P_{tr}/P_{tr} = 1.47$



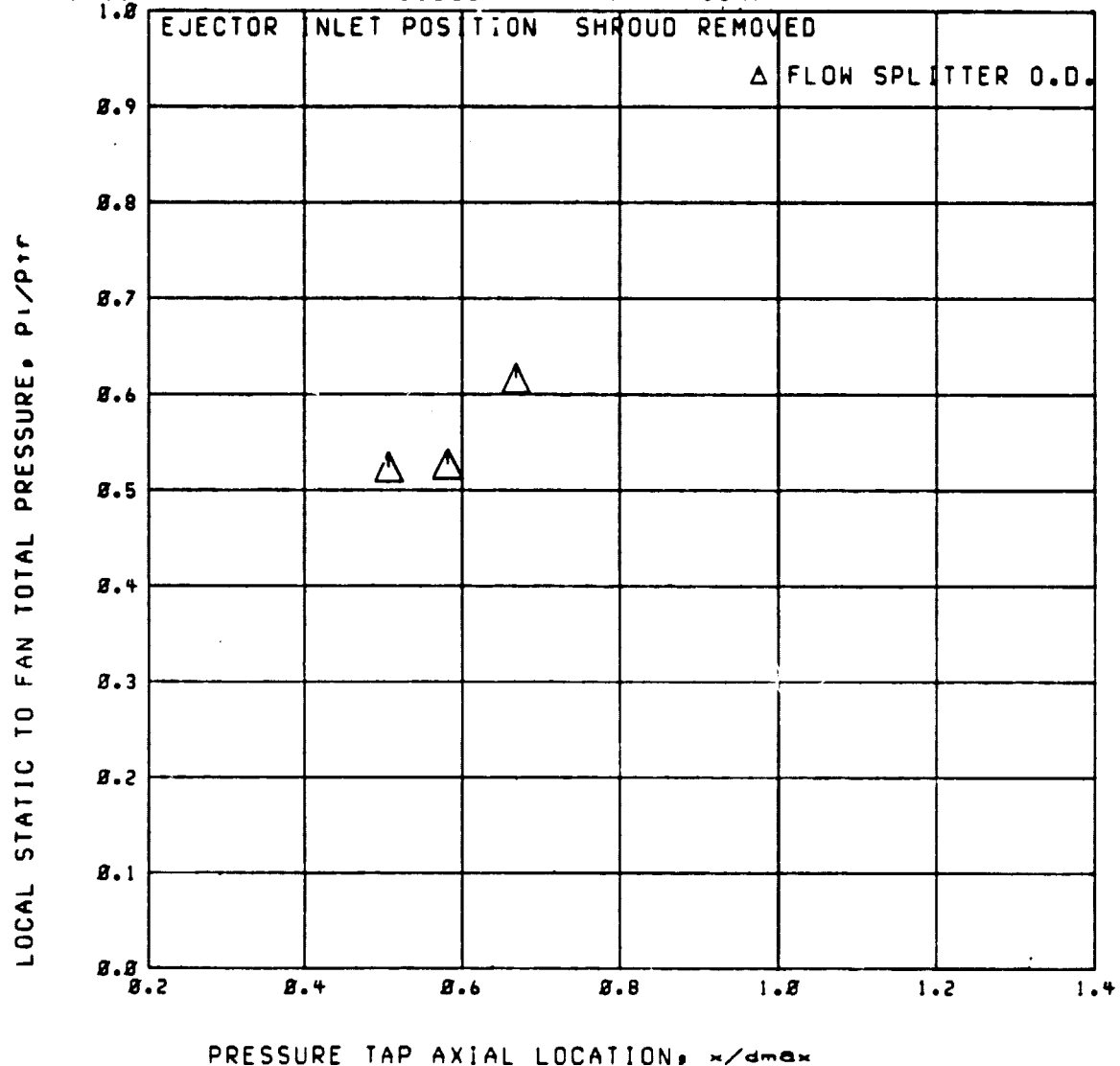
RW58

RDG=2642

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.81$   $P_{tr}/P_0 = 1.836$   $P_{tr}/P_{tp} = 1.47$





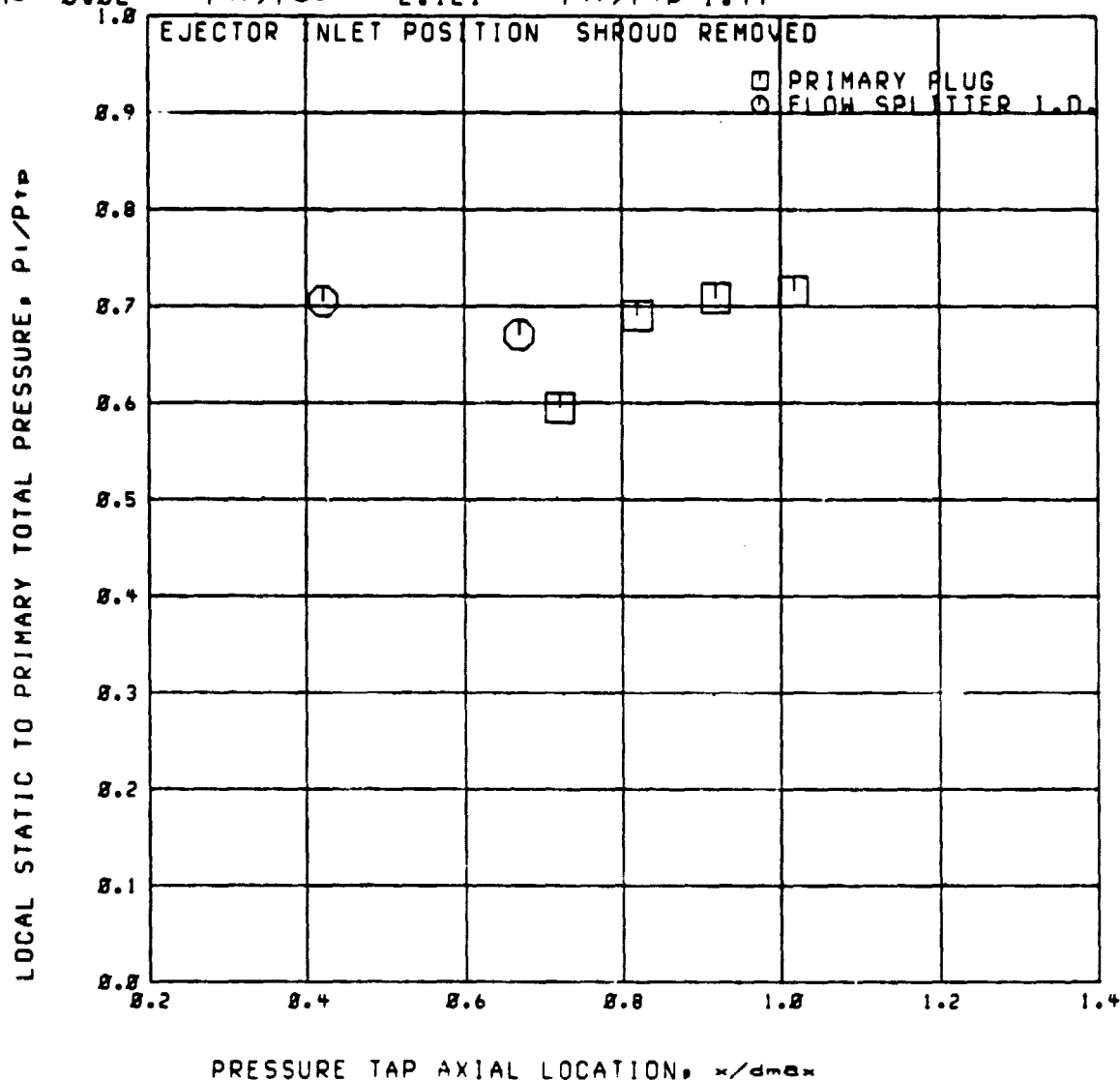
Run 58

RDG=2643

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.82$   $P_{tr}/P_0 = 2.121$   $P_{tr}/P_{tr} = 1.44$



Run 58

C3

RDG=2643

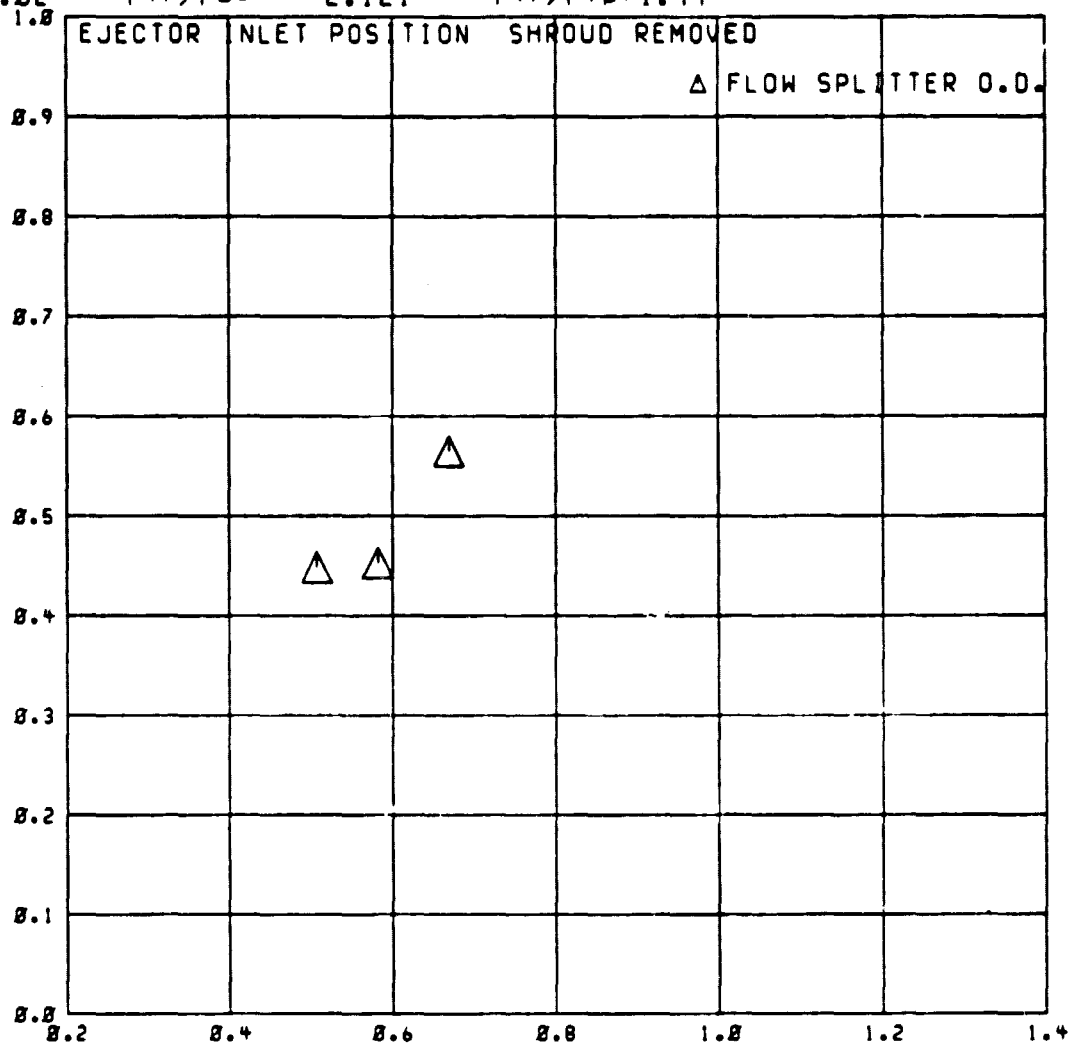
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.82$

$P_{tr}/P_0 = 2.121$

$P_{tr}/P_{tp} = 1.44$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

Run 58

C3

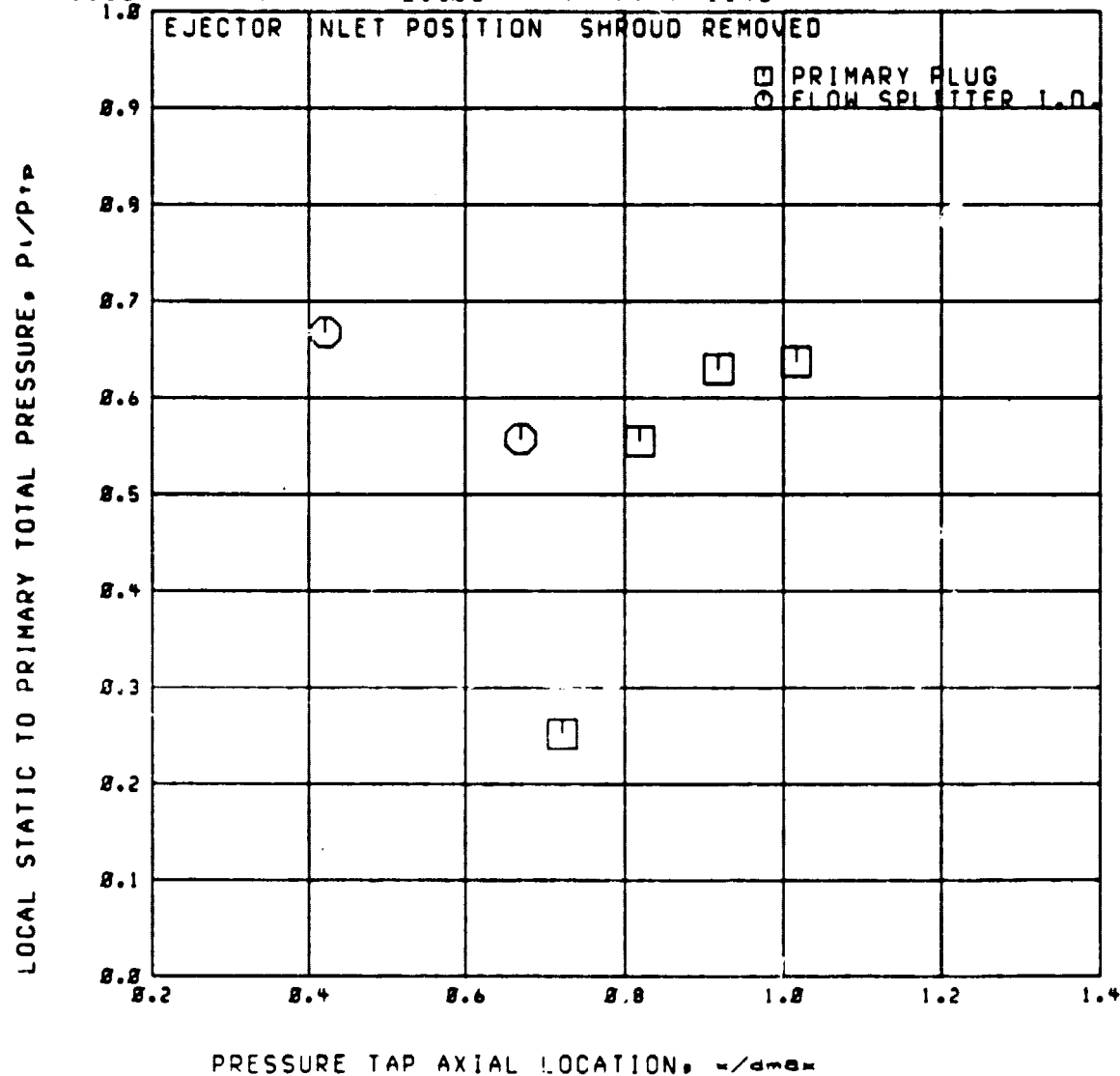
RDG=2644

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.83$

$P_{t0}/P_{00} = 2.506$

$P_{t0}/P_{tP} = 1.45$



Run 5B

RDG=2644

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

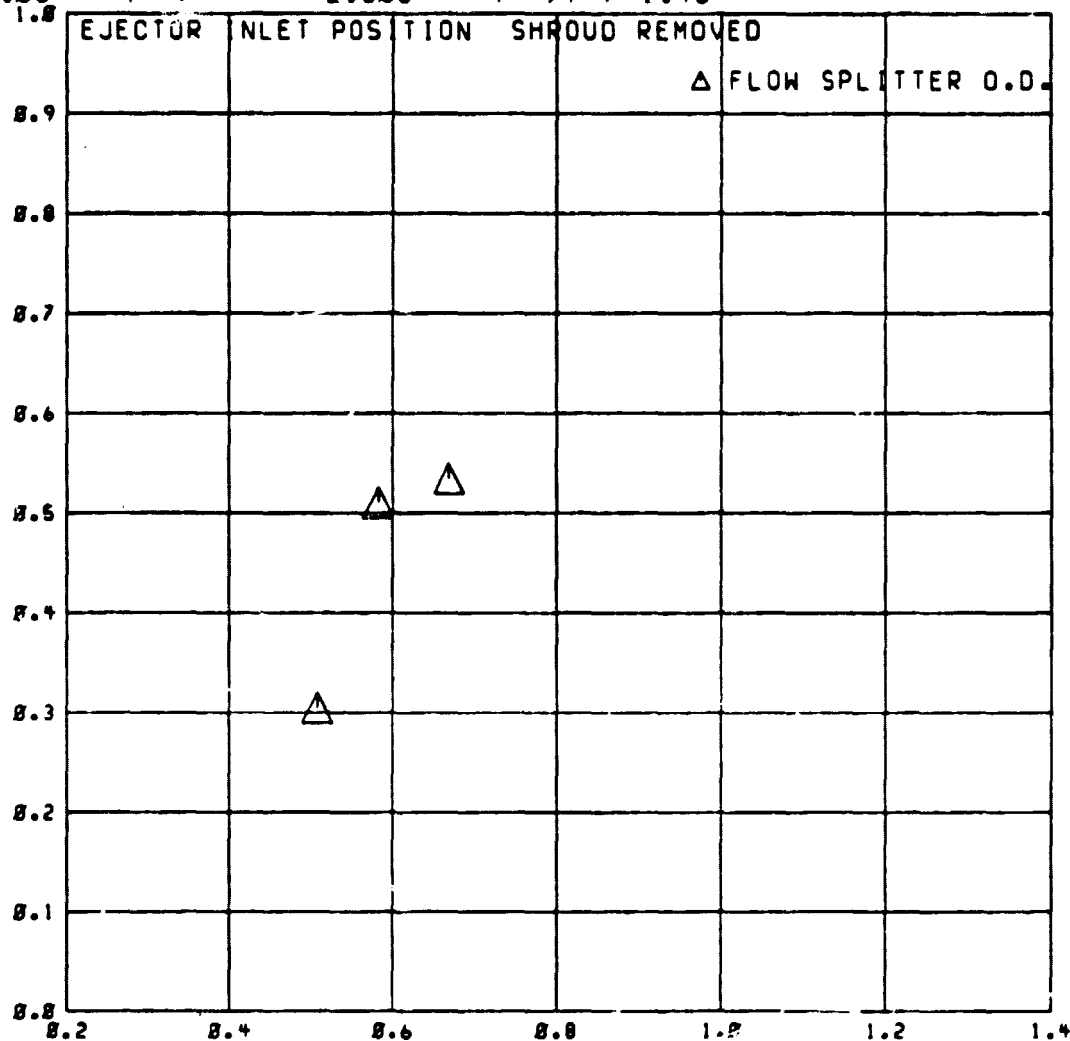
$M_0 = 0.83$

$P_{t0}/P_0 =$

2.586

$P_{t0}/P_{tP} = 1.45$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_t/P_{tP}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

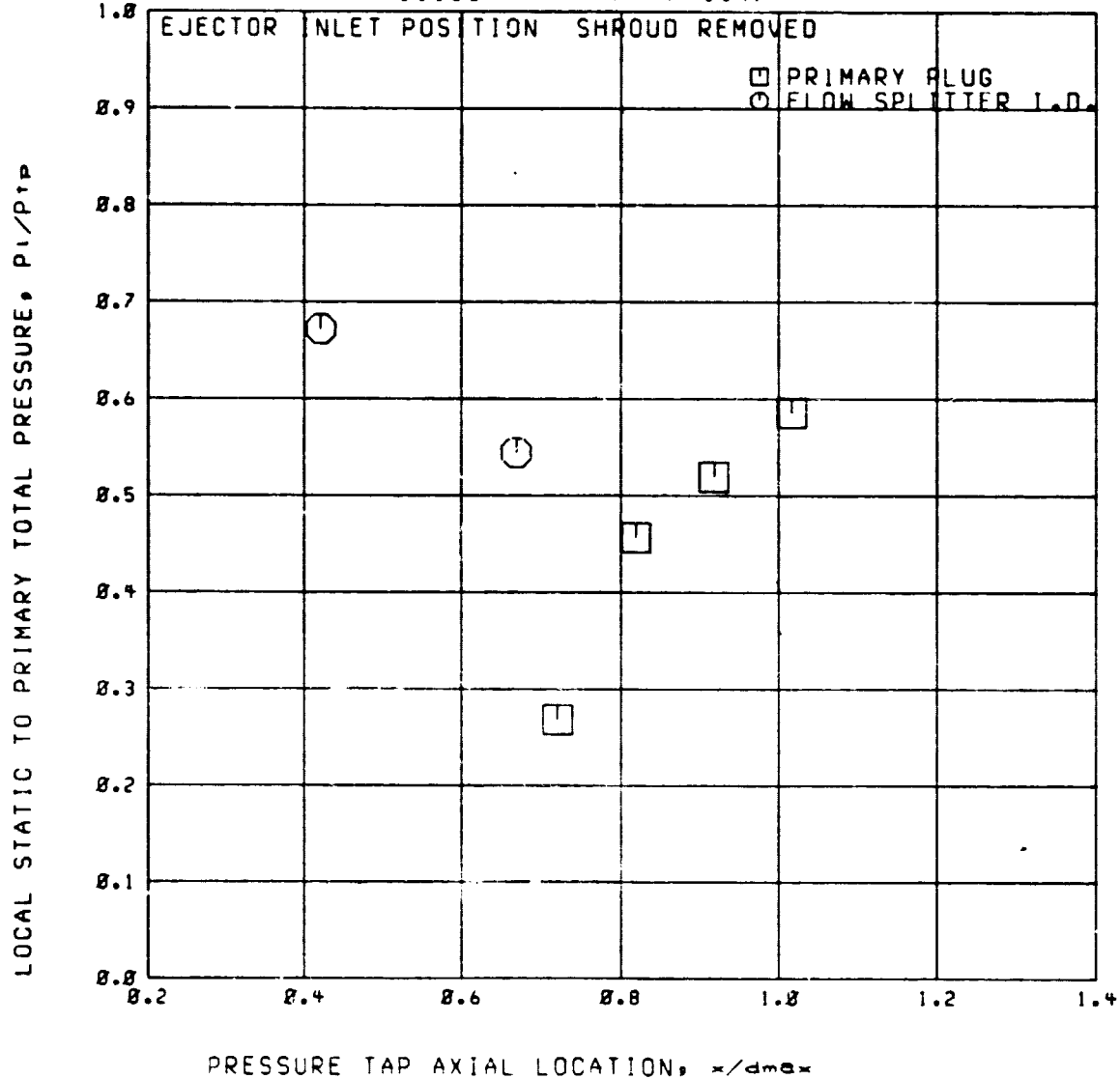
Run 58

C3

RDG=2645

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.04$   $P_{tr}/P_o = 3.106$   $P_{tr}/P_{trp} = 1.47$



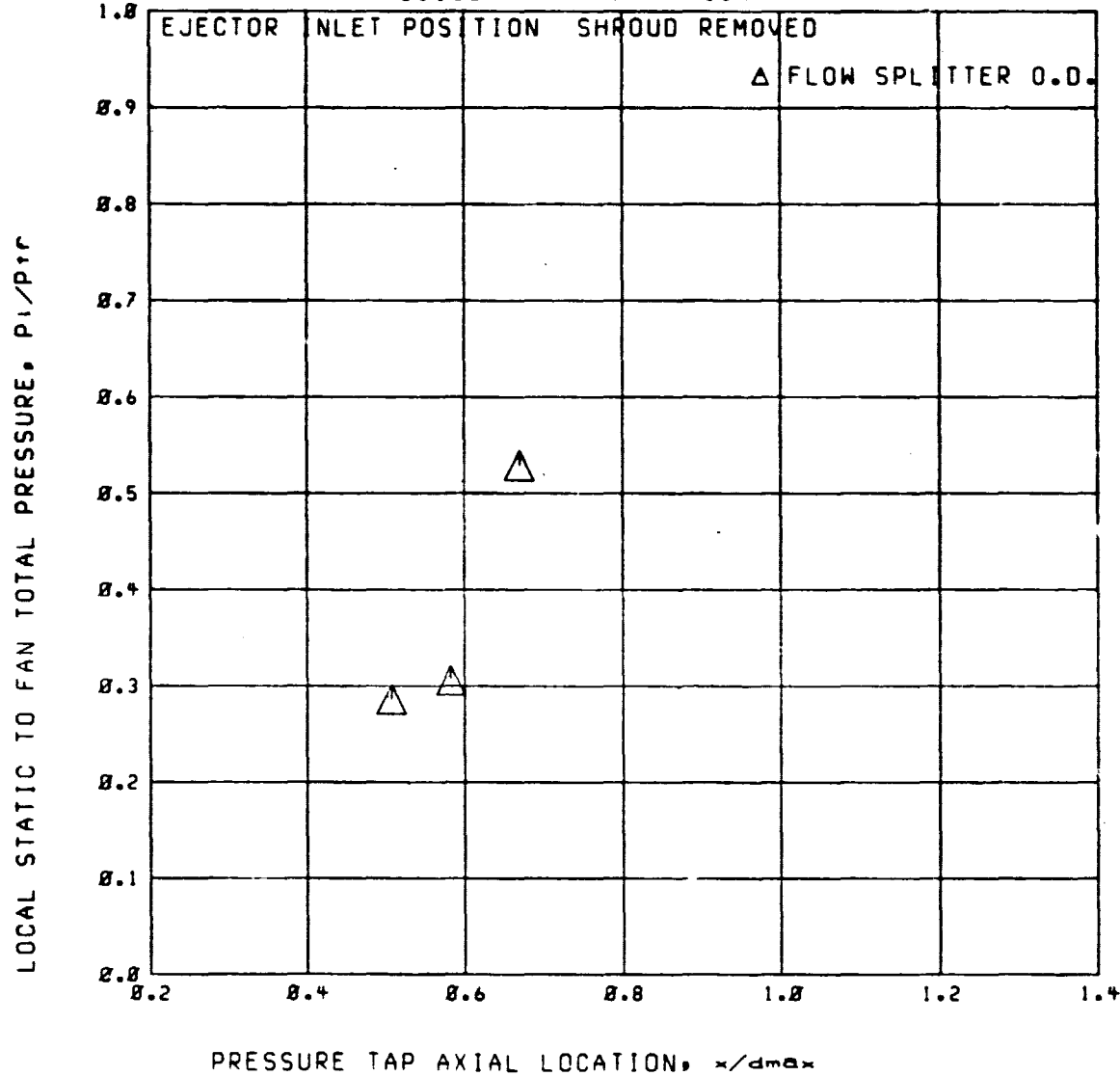
RUN 58

C3

RDG=2645

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.04$      $P_{tr}/P_o = 3.106$      $P_{tr}/P_{tr} = 1.47$



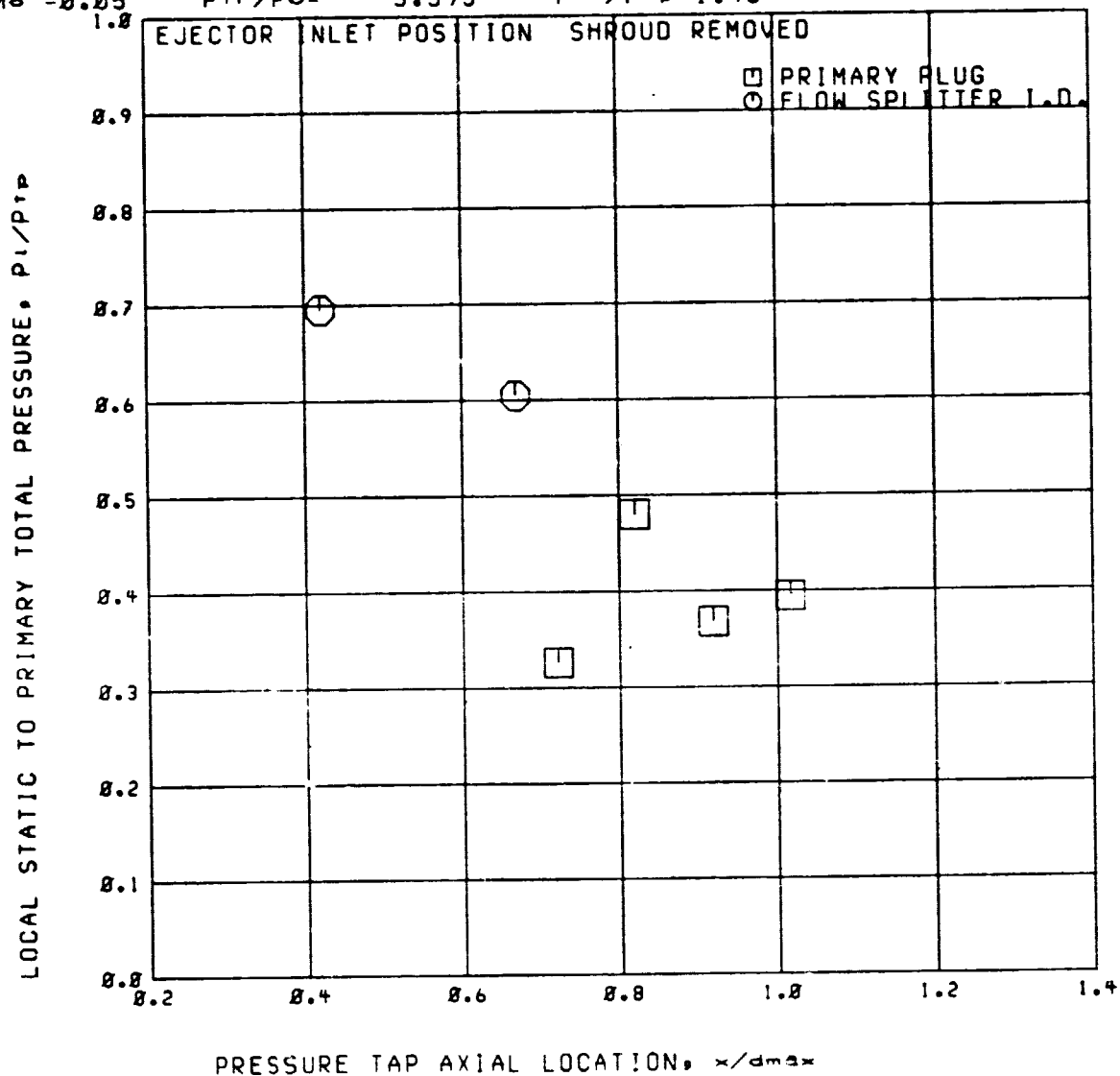
RUN 58

RDG=2646

C3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.85$   $P_{tr}/P_0 = 3.595$   $P_{tr}/P_{tr} = 1.46$



Run 58

C3

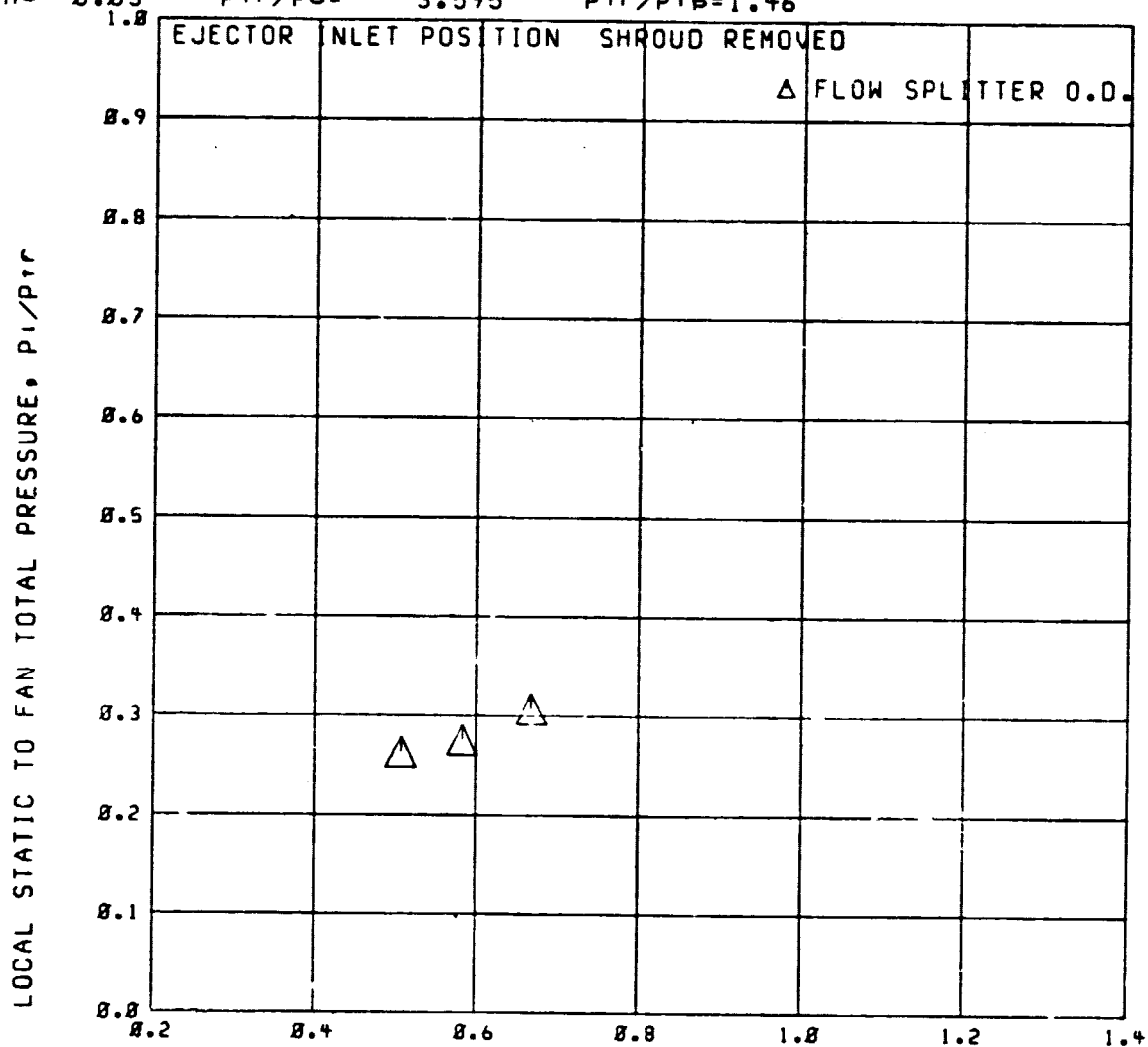
RDG=2646

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$

$P_{tr}/P_0 = 3.595$

$P_{tr}/P_{tr0} = 1.46$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$



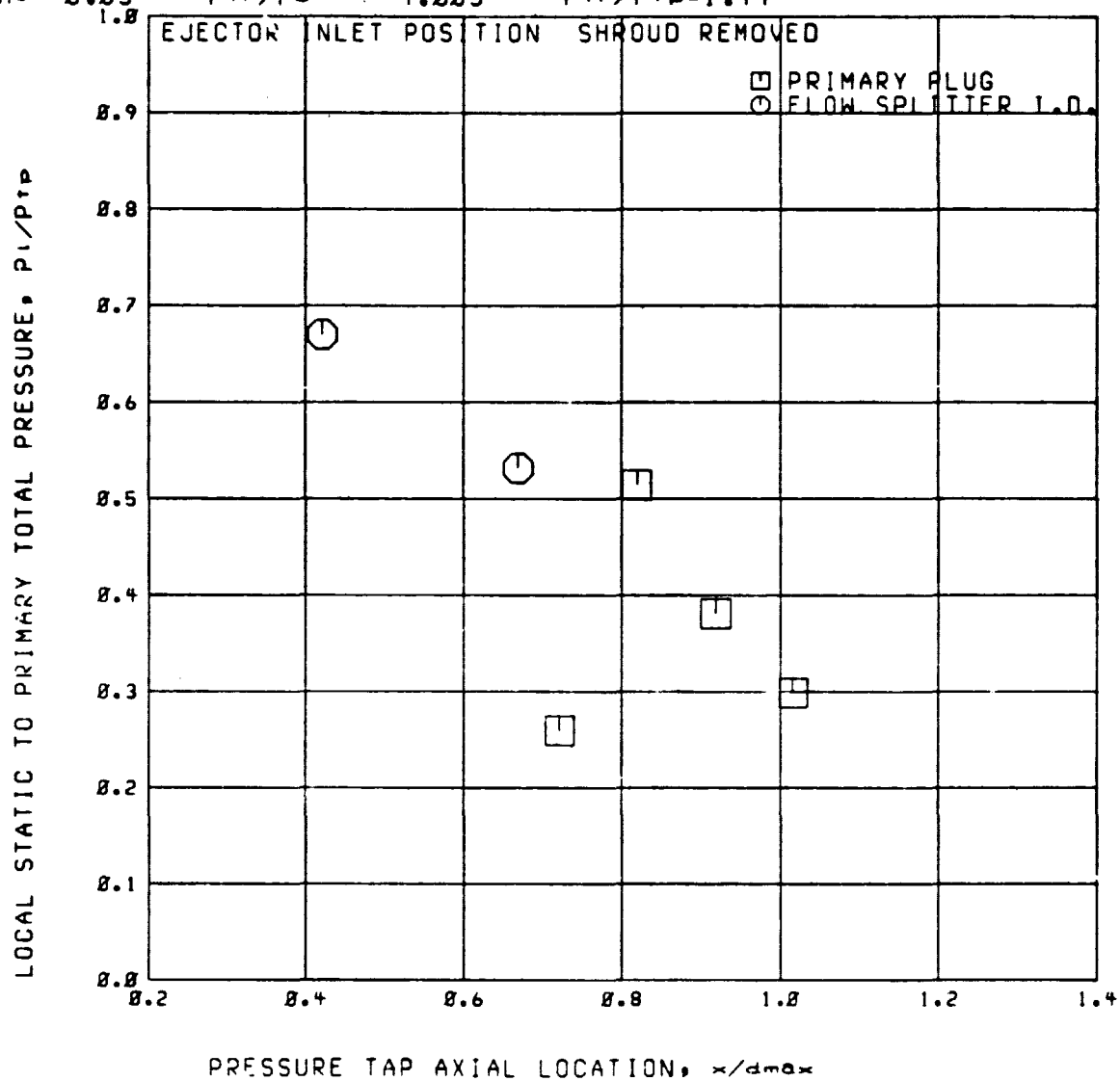
Run 58

C3

RDG=2647

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$   $P_{ir}/P_0 = 4.003$   $P_{ir}/P_{ip} = 1.44$



RUN 58

RDG=2647

C3

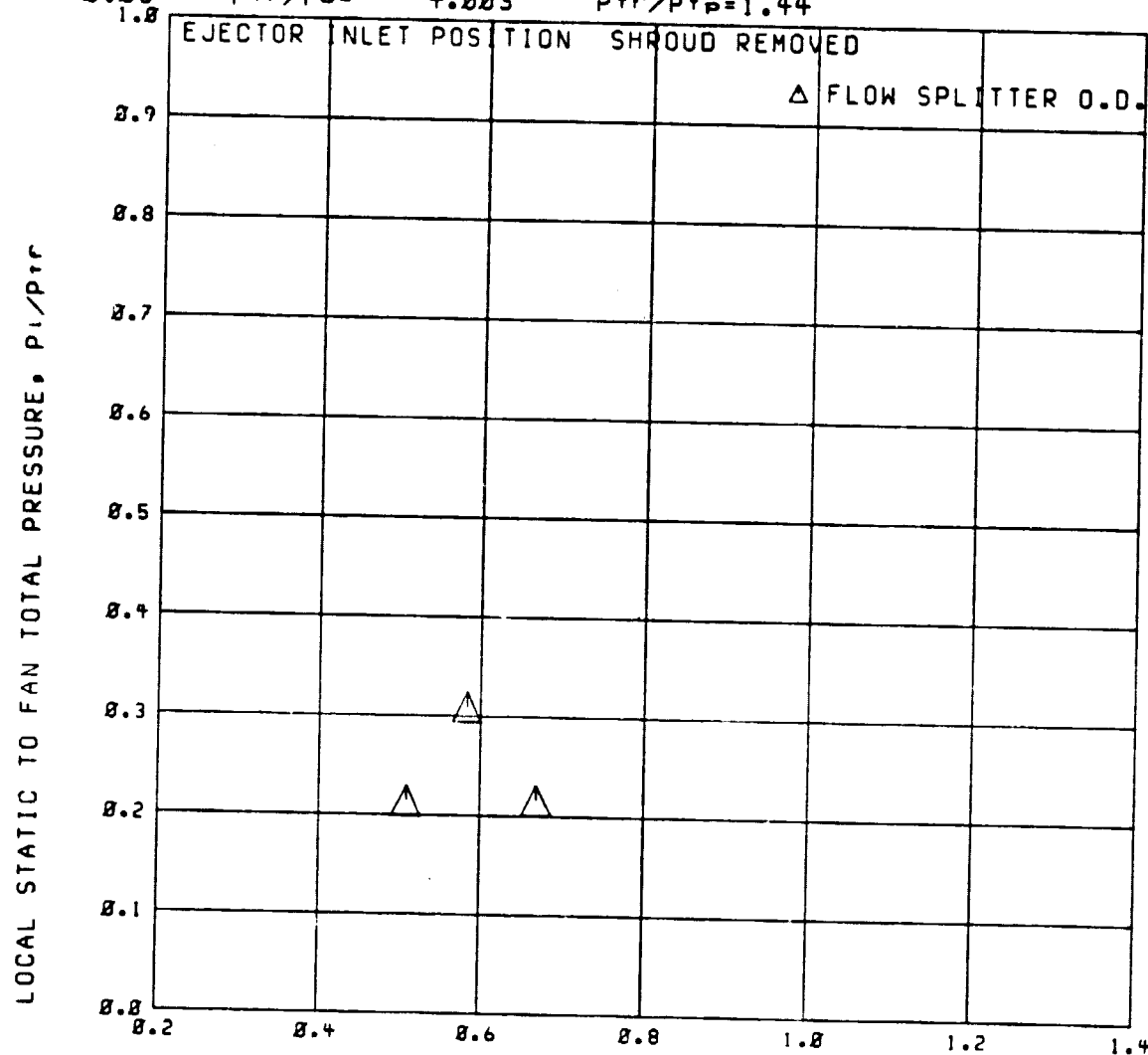
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$

$P_{tr}/P_0 =$

4.003

$P_{tr}/P_{tr} = 1.44$



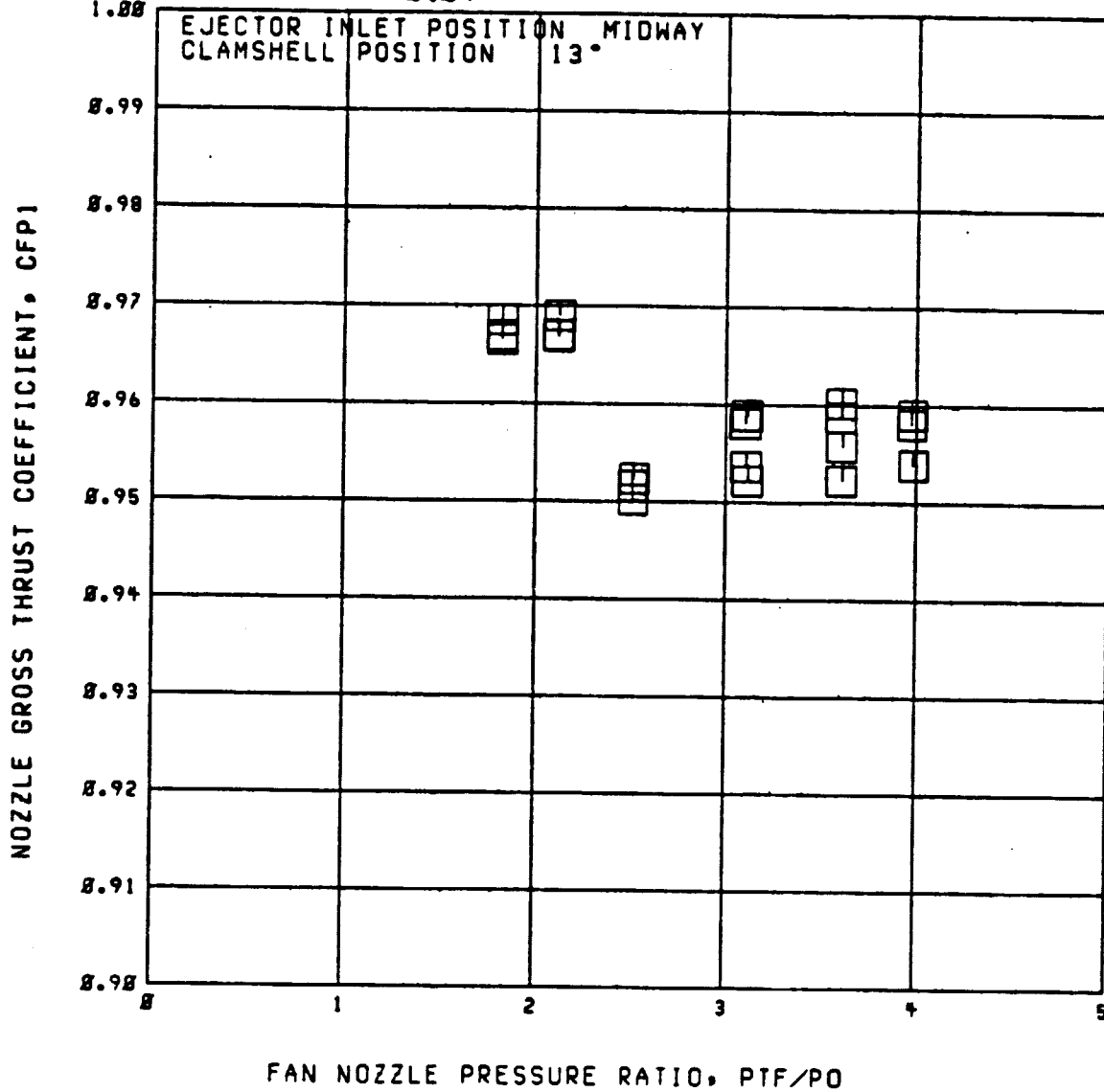
RAG. 2658-2680

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS

TAKEOFF

$P_{t1}/P_{t0} = 1.46$

RUN 59  $M_0 = 0$   $M_e = 0.84$



RDG 2681-2693

C3 28DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS

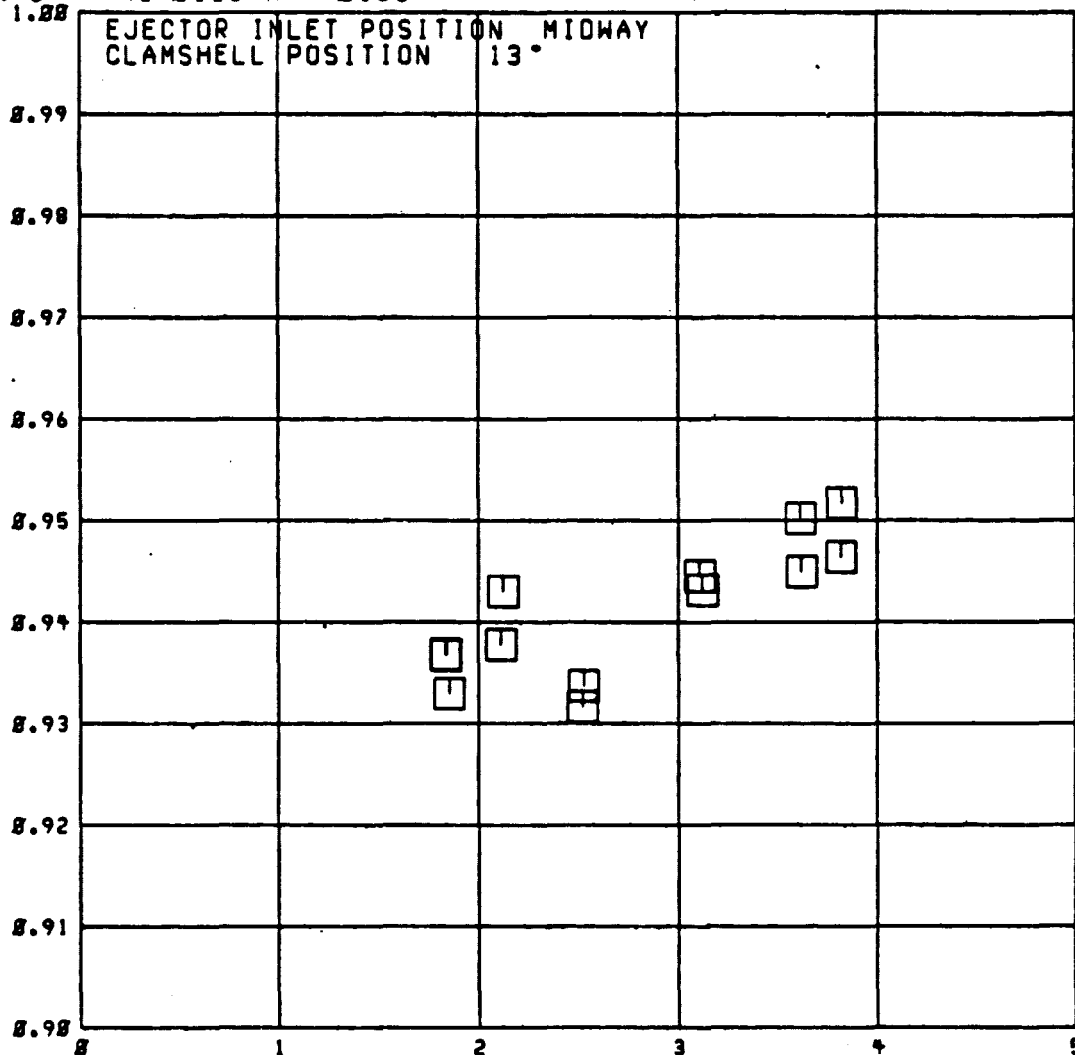
TAKEOFF

$P_{tr}/P_{tp} = \square = 1.46$

RUN 59  $M_0 = 0.36$   $M = 0.36$

1.88

NOZZLE GROSS THRUST COEFFICIENT,  $CFPI$



FAN NOZZLE PRESSURE RATIO,  $PTF/PO$

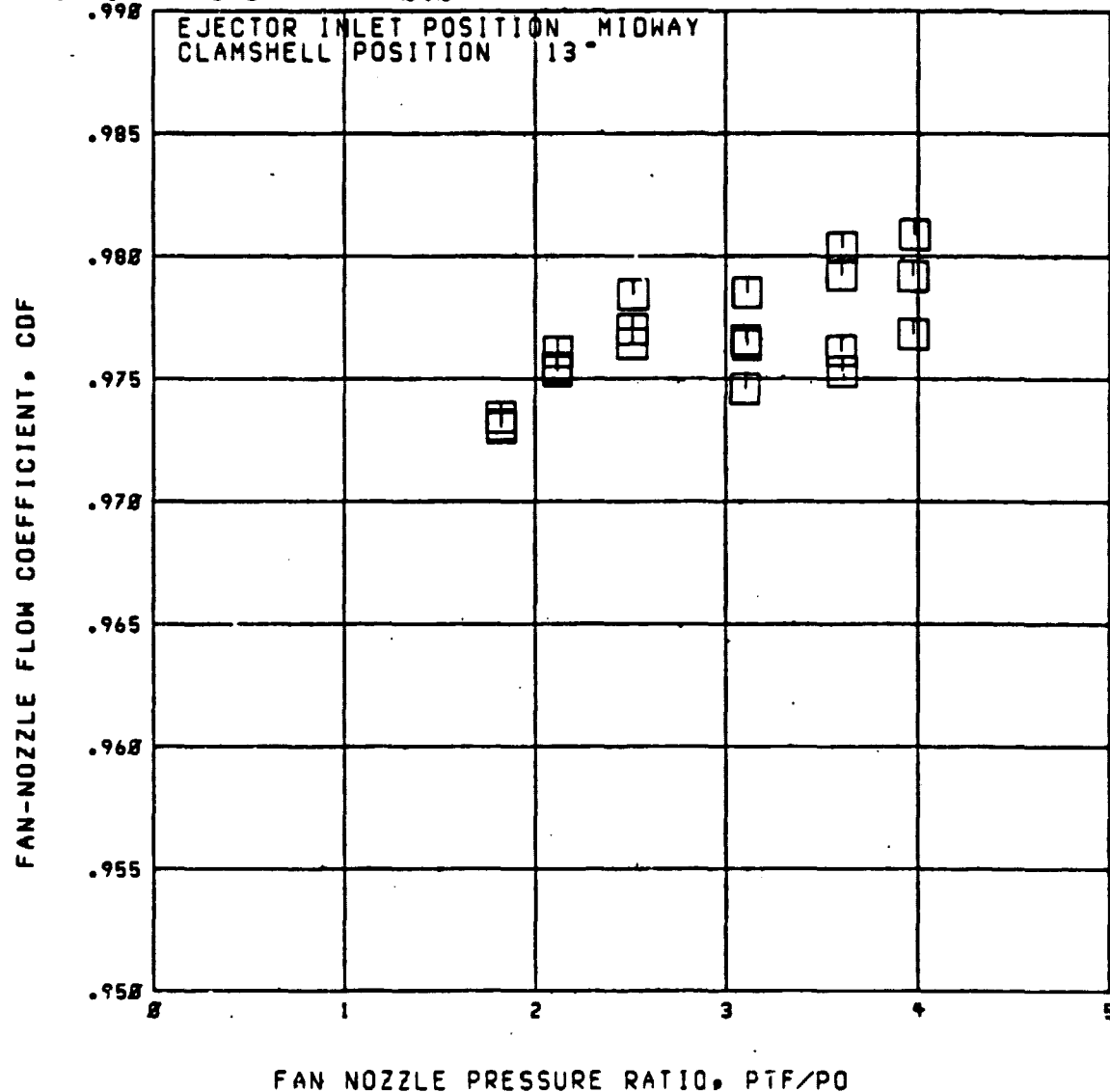
R04. 2658 - 2680

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS

TAKEOFF

$P_{tr}/P_{to} = 1.46$

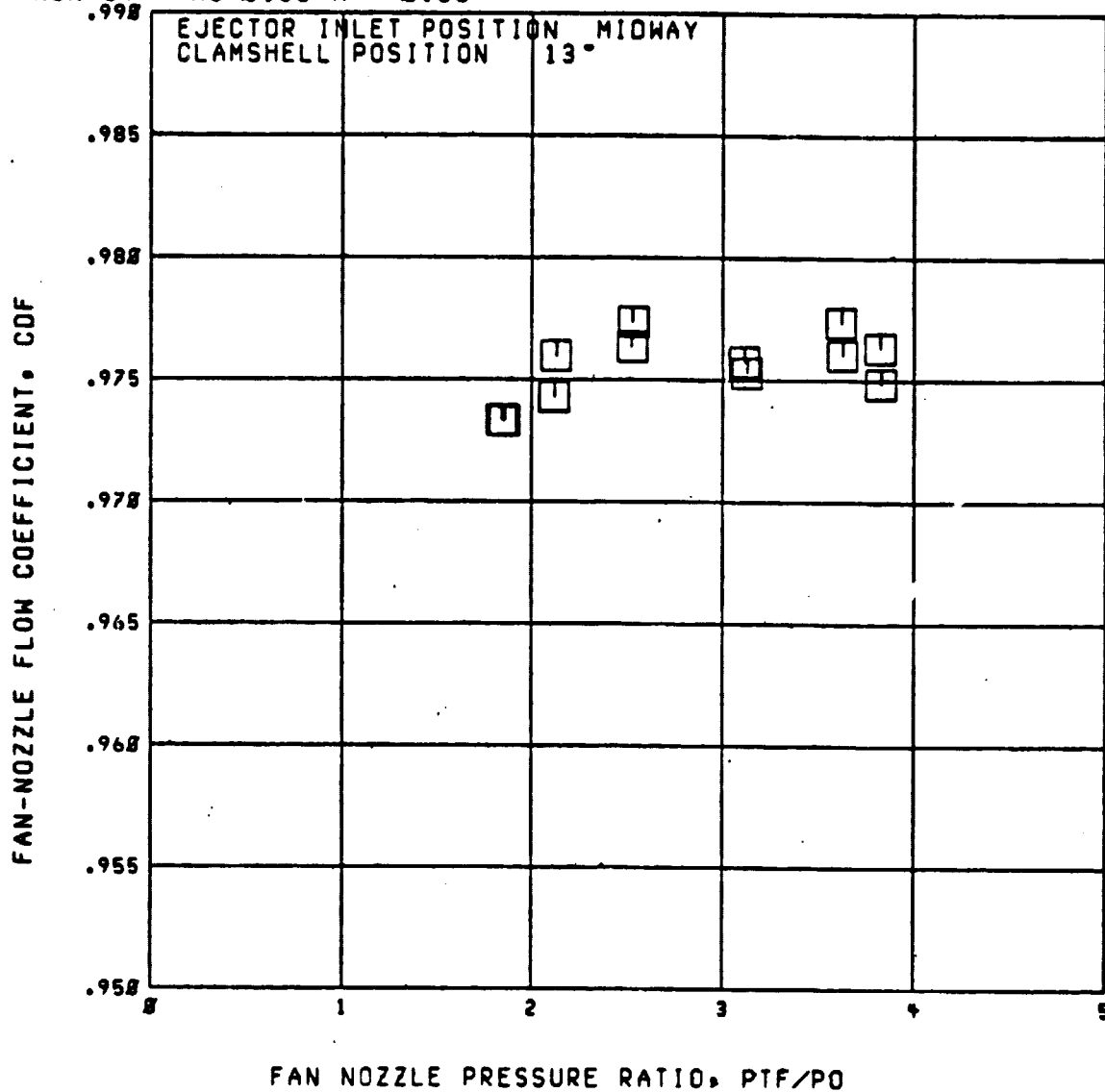
RUN 59  $M_0 = 0$   $M = 0.84$



RDG. 2681-2693

C3 28DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
TAKEOFF  $P_{tr}/P_{tp} = \square = 1.46$

RUN 59  $M_0 = 0.36$   $M_\infty = 0.36$

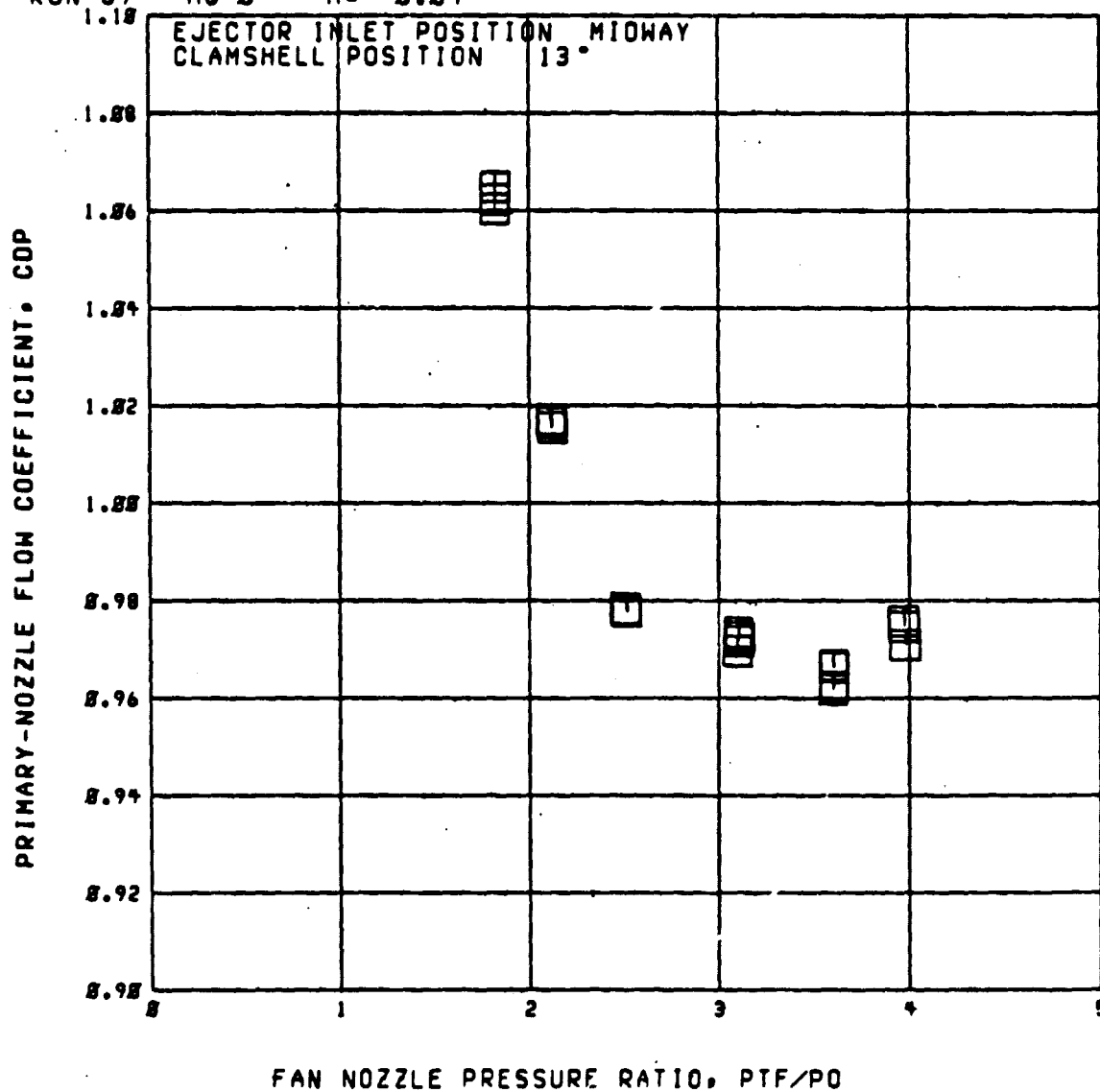


RDG 2658-2680

C3 280 DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
TAKEOFF

$P_{TC}/P_{TP} = 1.46$

RUN 59  $M_0 = 8$   $M = 8.84$



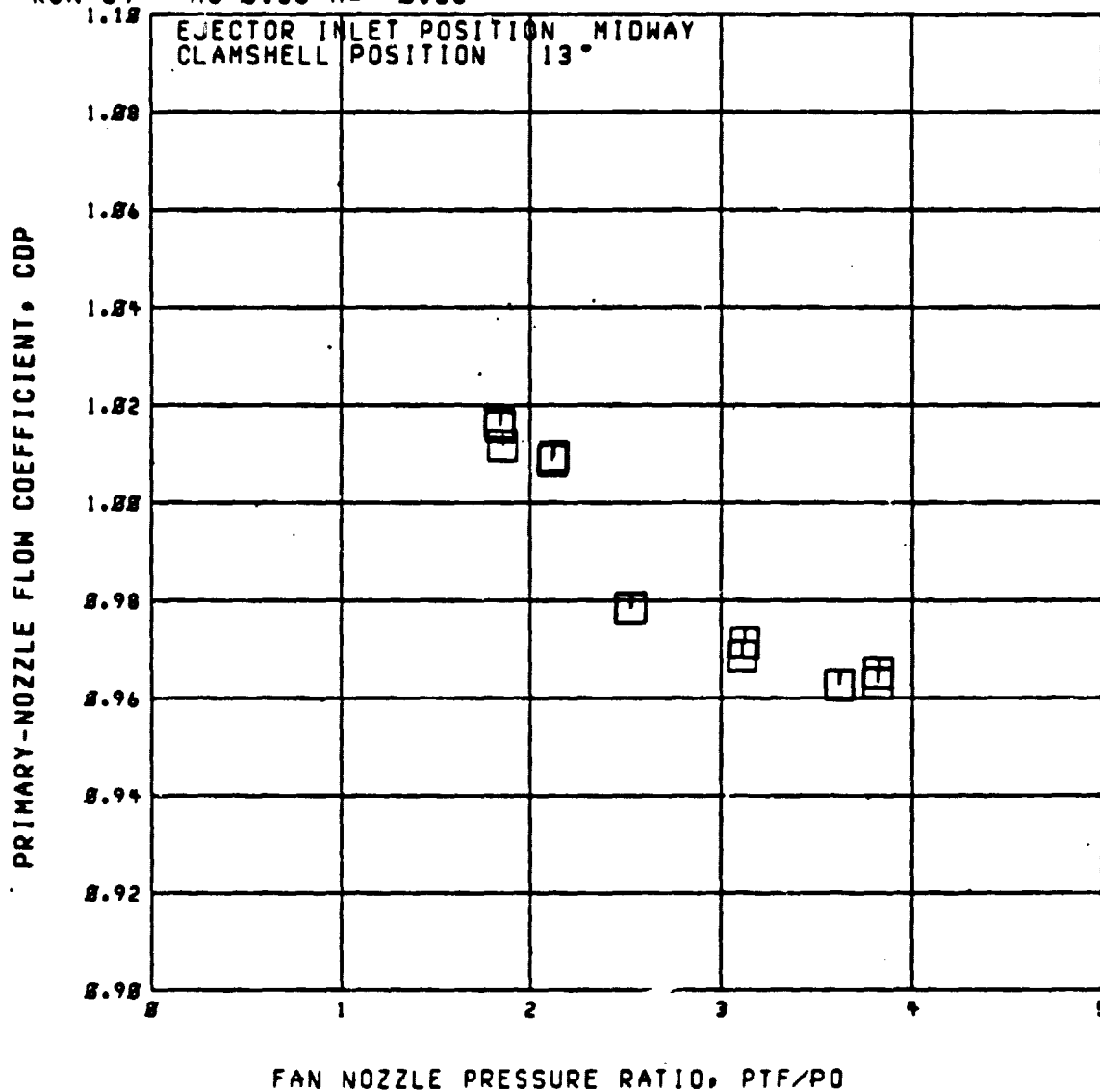
ROG. 2681-2693

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS

TAKEOFF

$P_{tr}/P_{te} = \square = 1.46$

RUN 59  $M_0 = 0.36$   $M_e = 0.36$

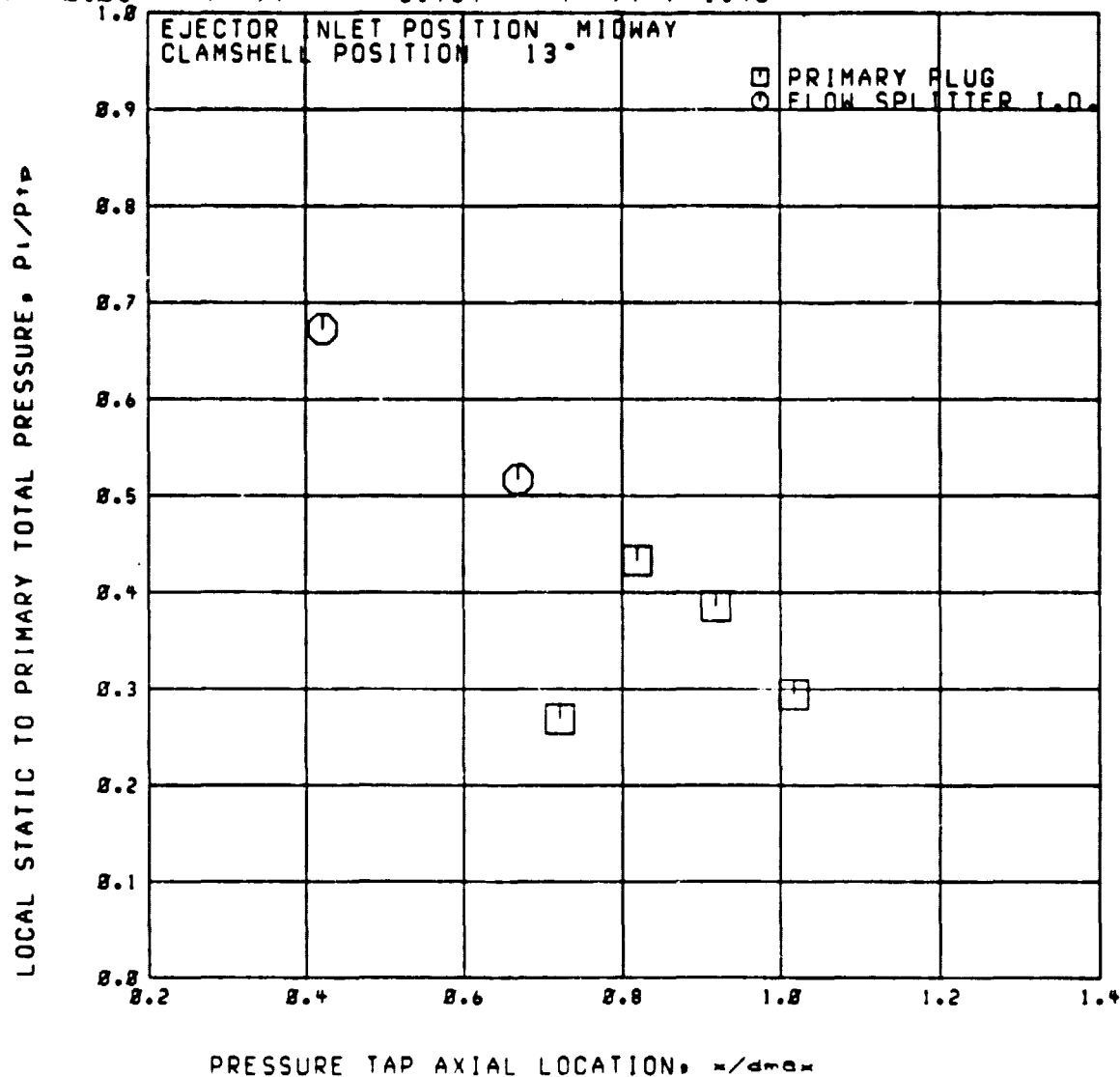




Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS RDG=2675  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.85$   $P_{t0}/P_0 = 3.984$   $P_{t0}/P_{t0} = 1.46$

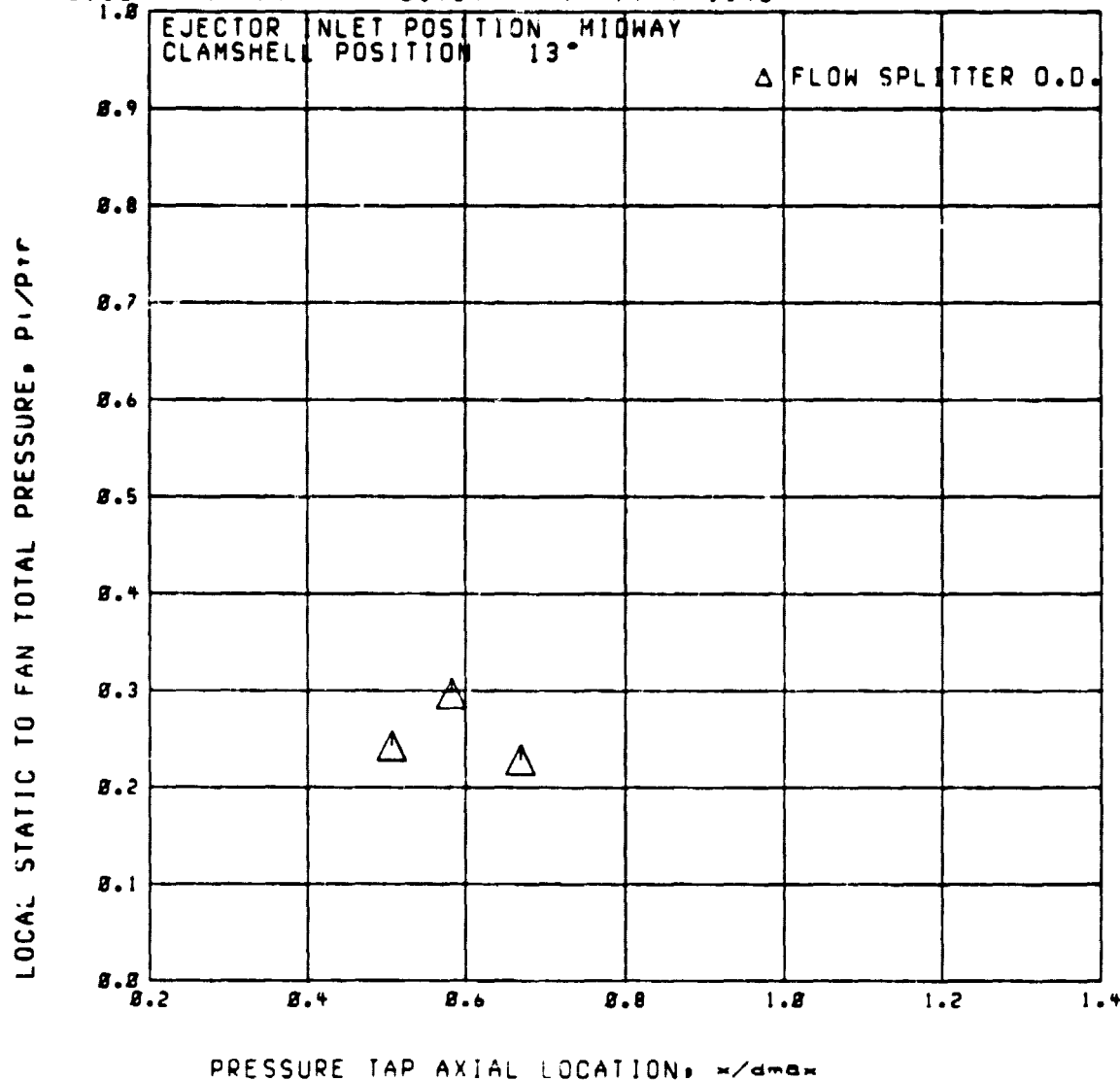


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2675

$M = 0.85$   $P_{tr}/P_o = 3.984$   $P_{tr}/P_{tr} = 1.46$



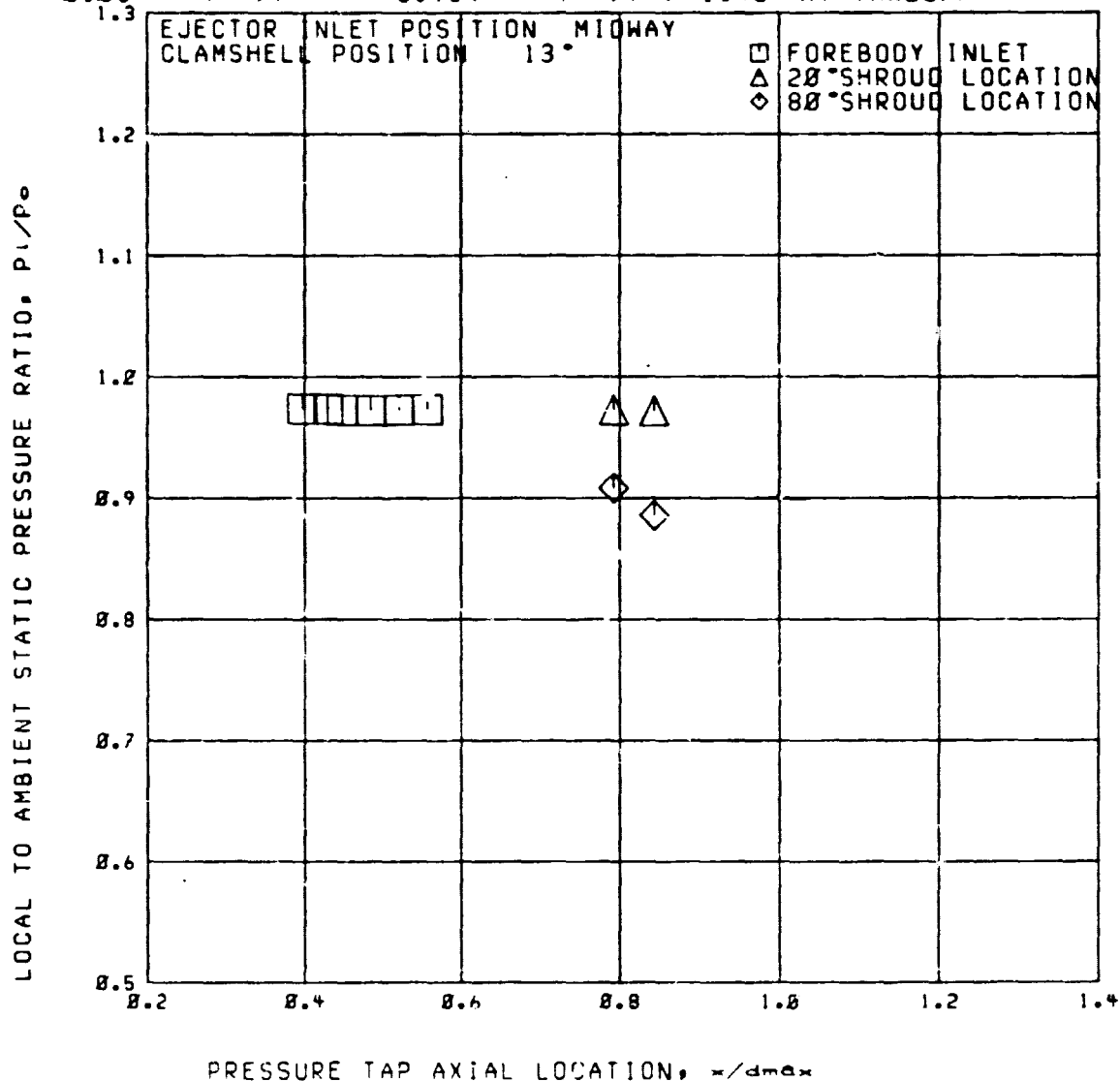
RUN 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS

RDG=2675

EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

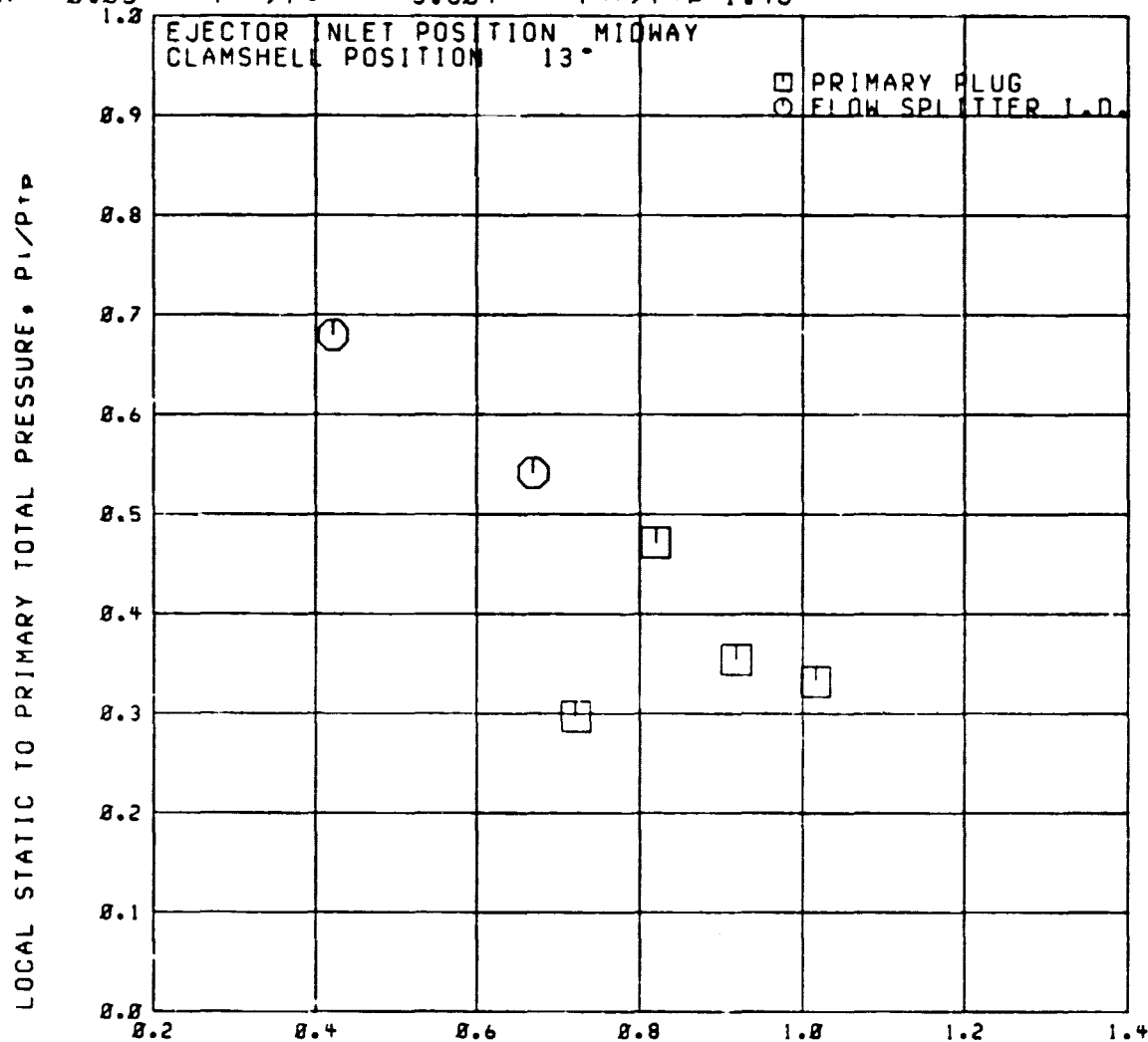
$M_o = 0.05$   $P_{ir}/P_o = 3.984$   $P_{ir}/P_{ip} = 1.46$  AT TAKEOFF



Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS ROD=2676  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$   $P_{tr}/P_0 = 3.604$   $P_{tr}/P_{tr} = 1.46$

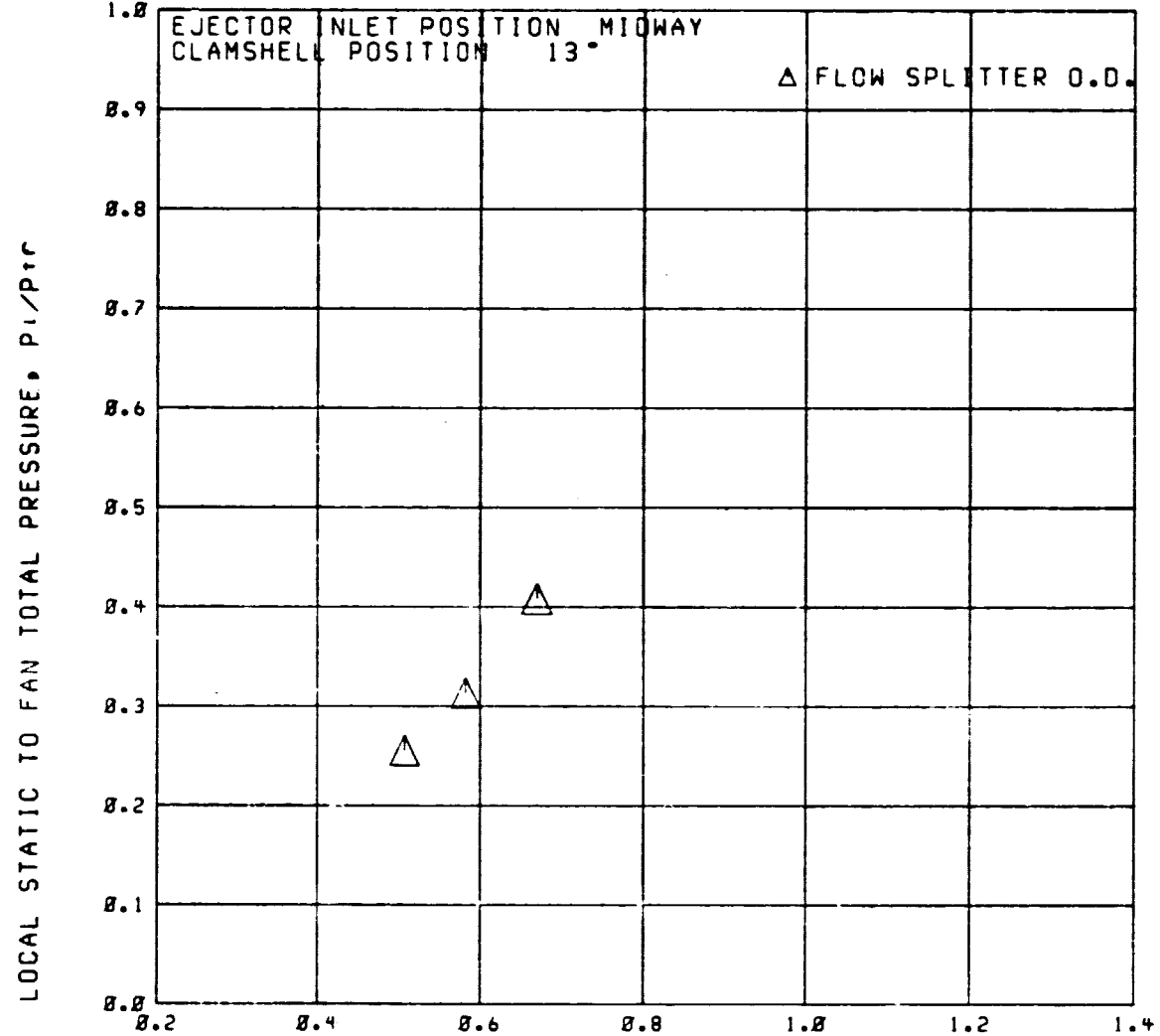


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2676

$M_0 = 0.05$   $P_{tr}/P_0 = 3.604$   $P_{tr}/P_{tr} = 1.46$



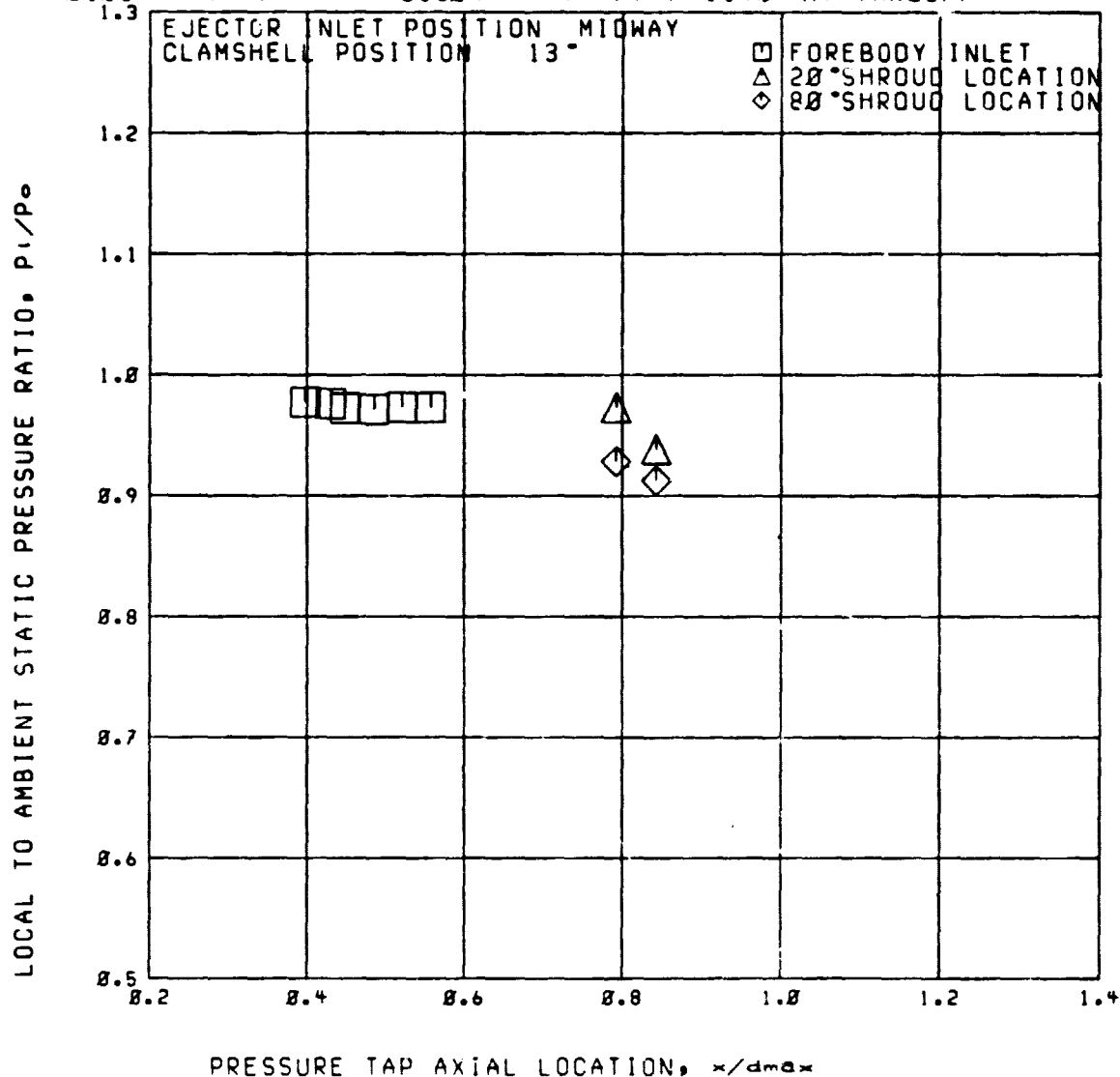
PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

RUN 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

RDG=2676

$M_o = 0.05$   $P_{tr}/P_o = 3.604$   $P_{tr}/P_{tp} = 1.46$  AT TAKEOFF

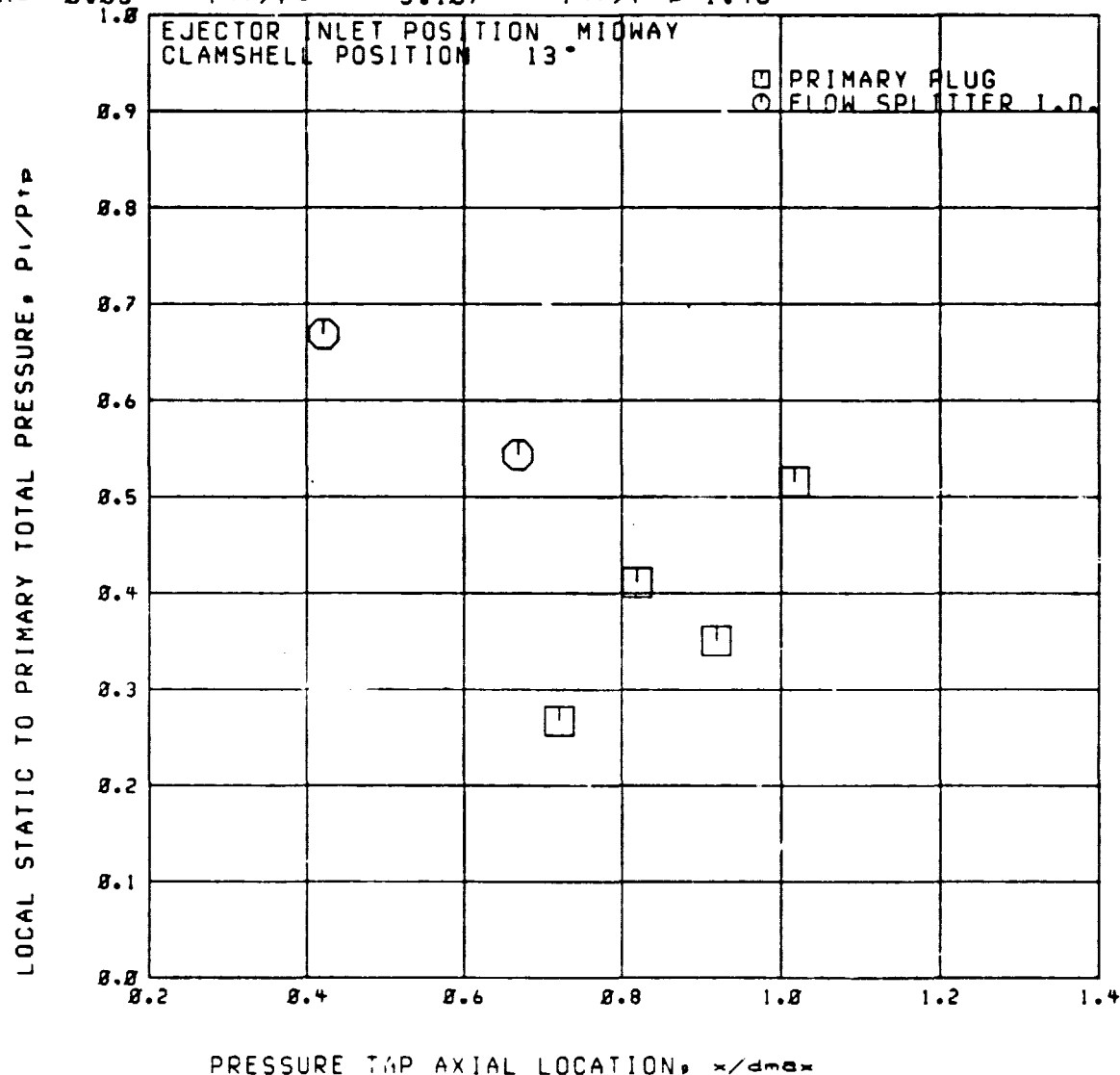


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2677

$M_0 = 0.05$   $P_{tr}/P_0 = 3.107$   $P_{tr}/P_{tp} = 1.48$

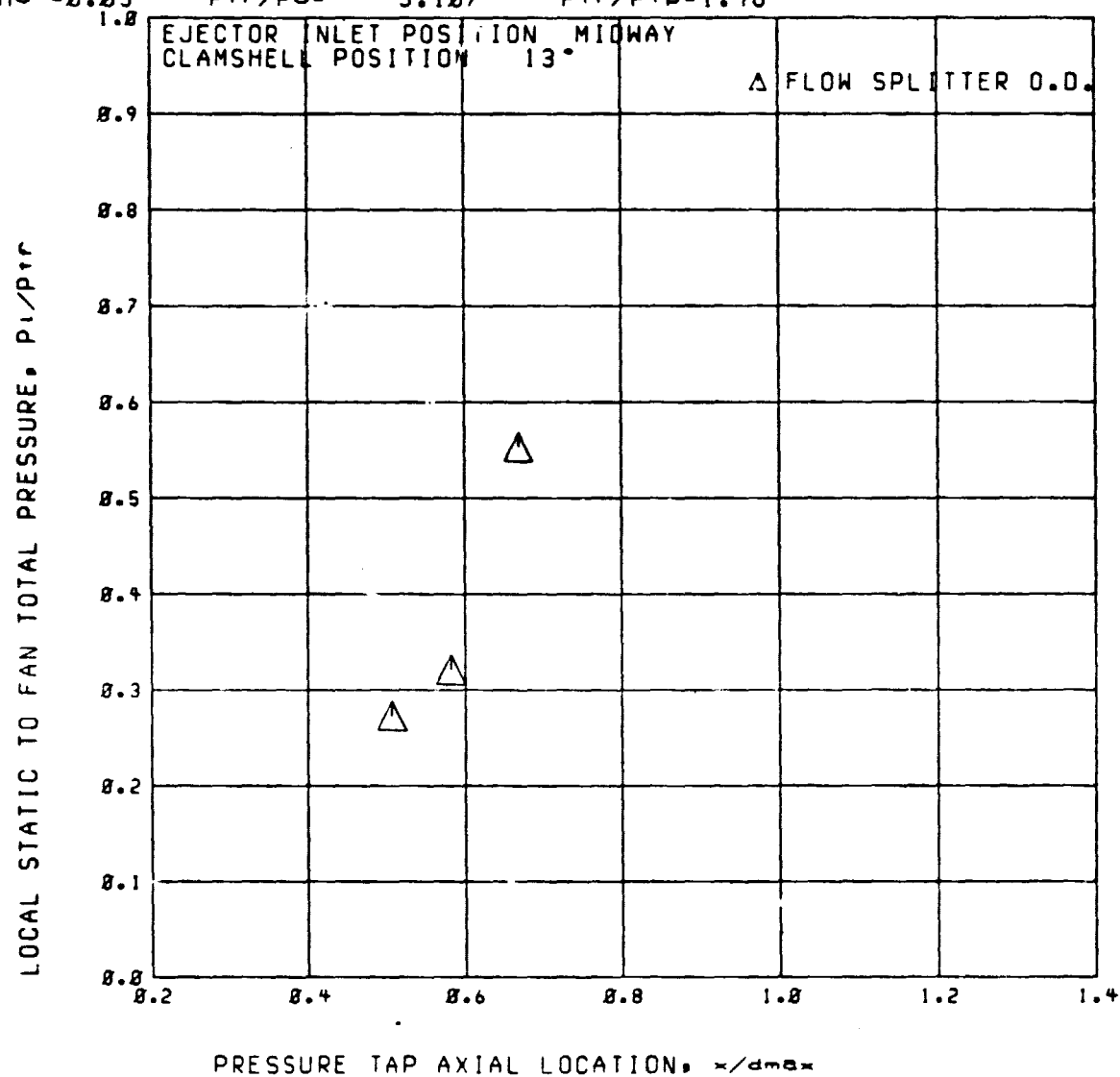


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2677

$M_0 = 0.85$   $P_{tr}/P_0 = 3.107$   $P_{tr}/P_{tr} = 1.48$



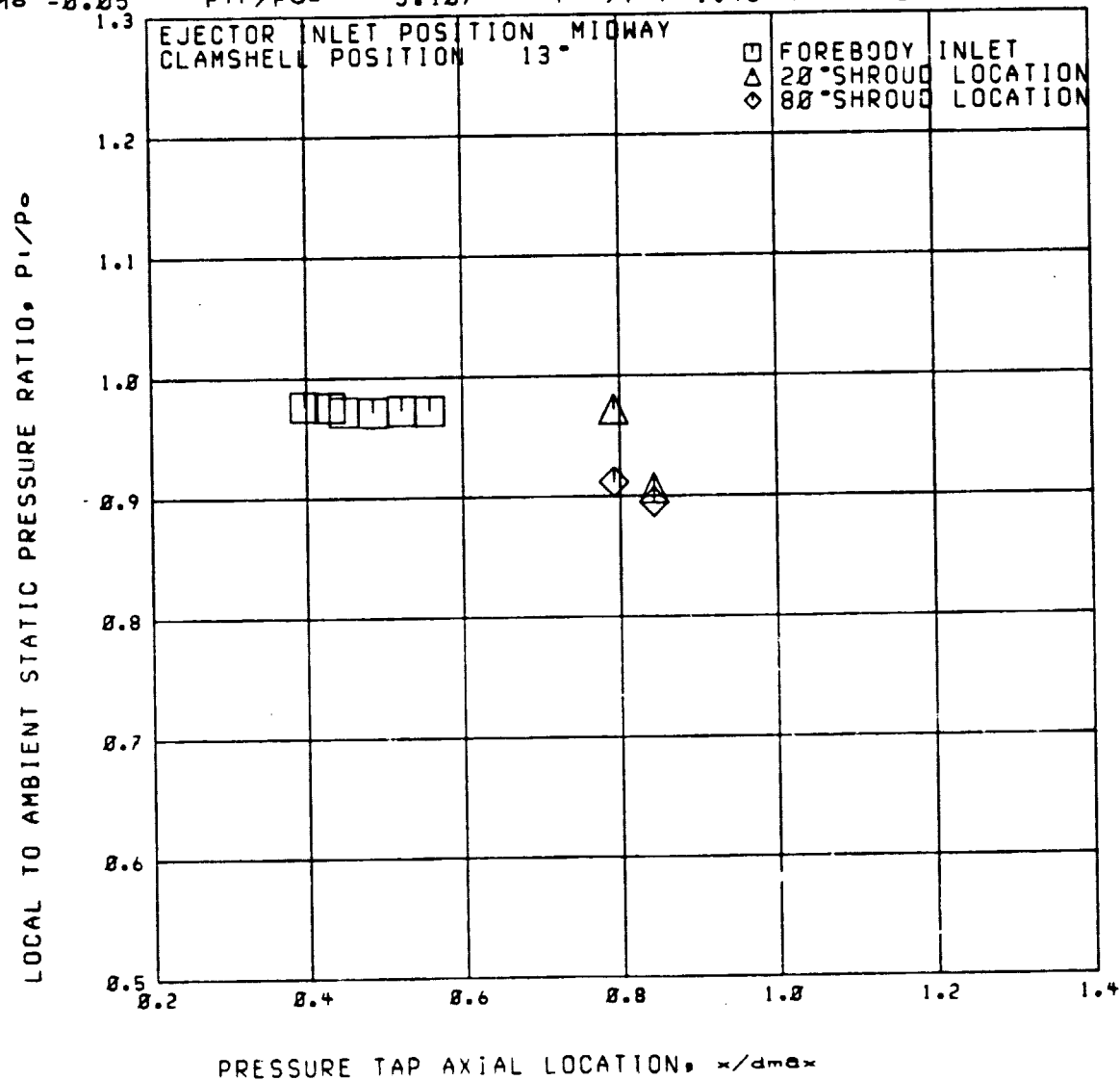


RUN 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

RDG=2677

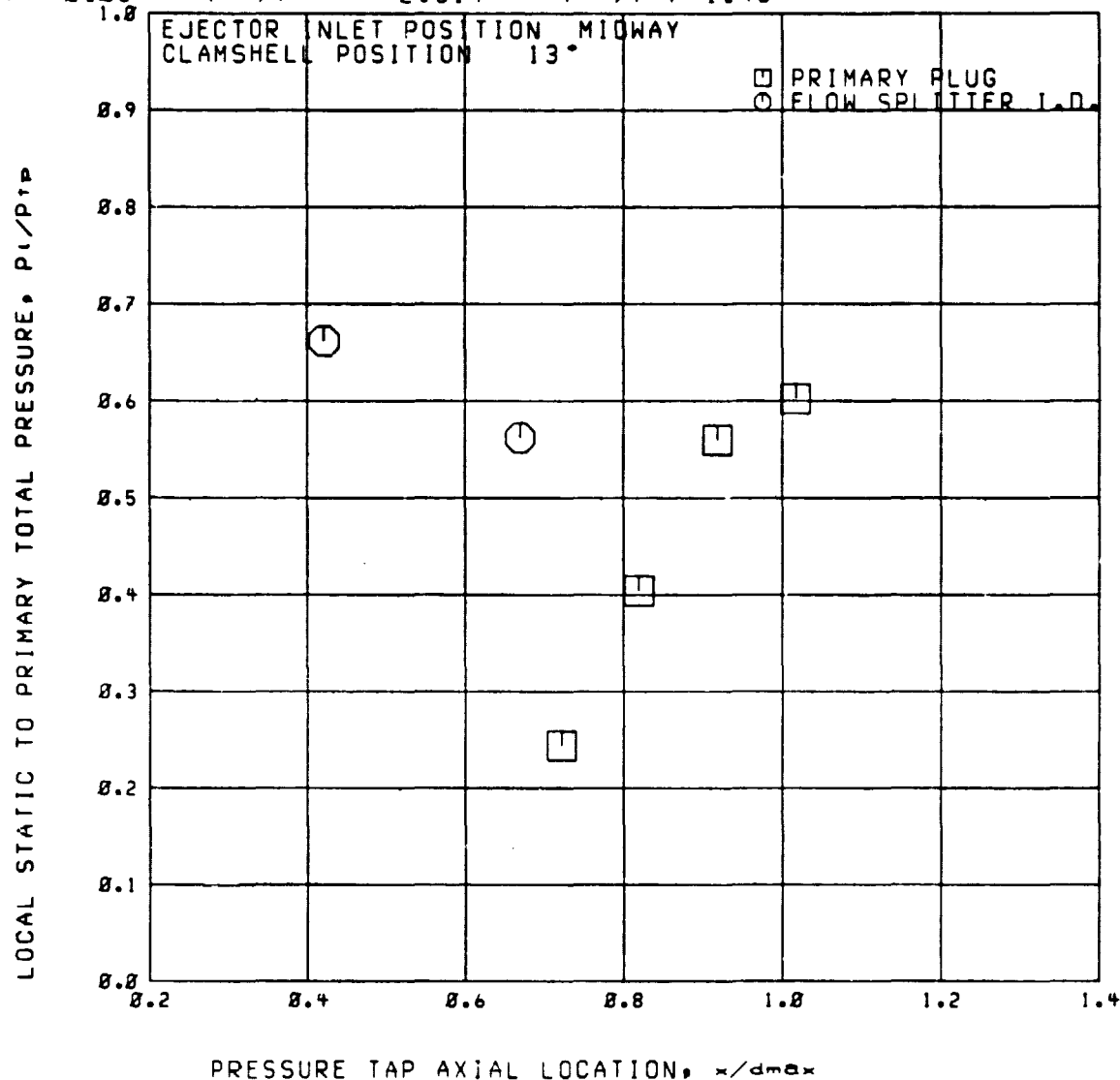
$M_0 = 0.05$   $P_{tr}/P_0 = 3.107$   $P_{tr}/P_{tr} = 1.48$  AT TAKEOFF



Run 59

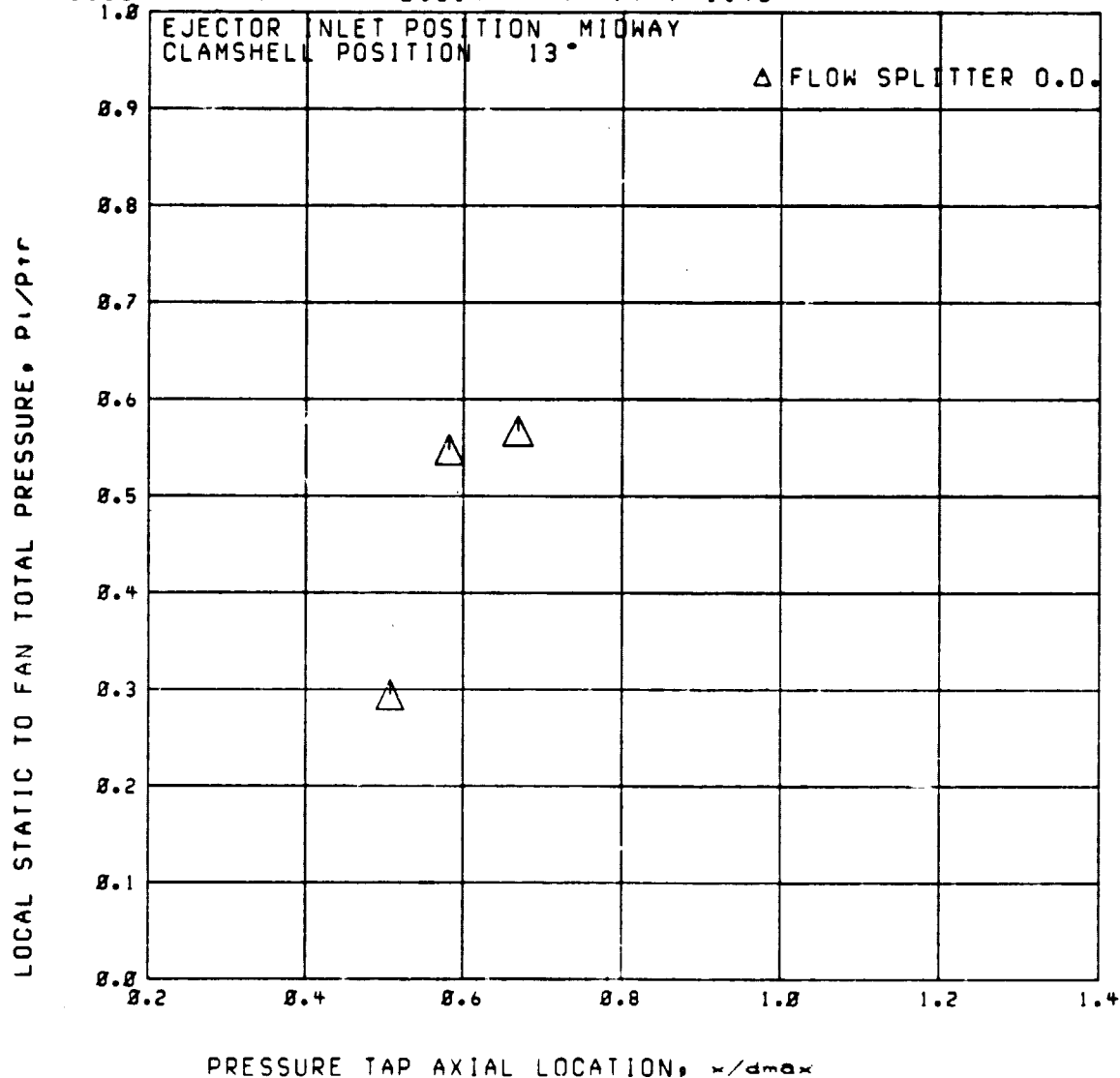
C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS ROD=2678  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.03$   $P_{tr}/P_o = 2.514$   $P_{tr}/P_{tr} = 1.45$



Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS RDG=2678  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF  
 $M_o = 0.83$   $P_{tr}/P_o = 2.514$   $P_{tr}/P_{tp} = 1.45$

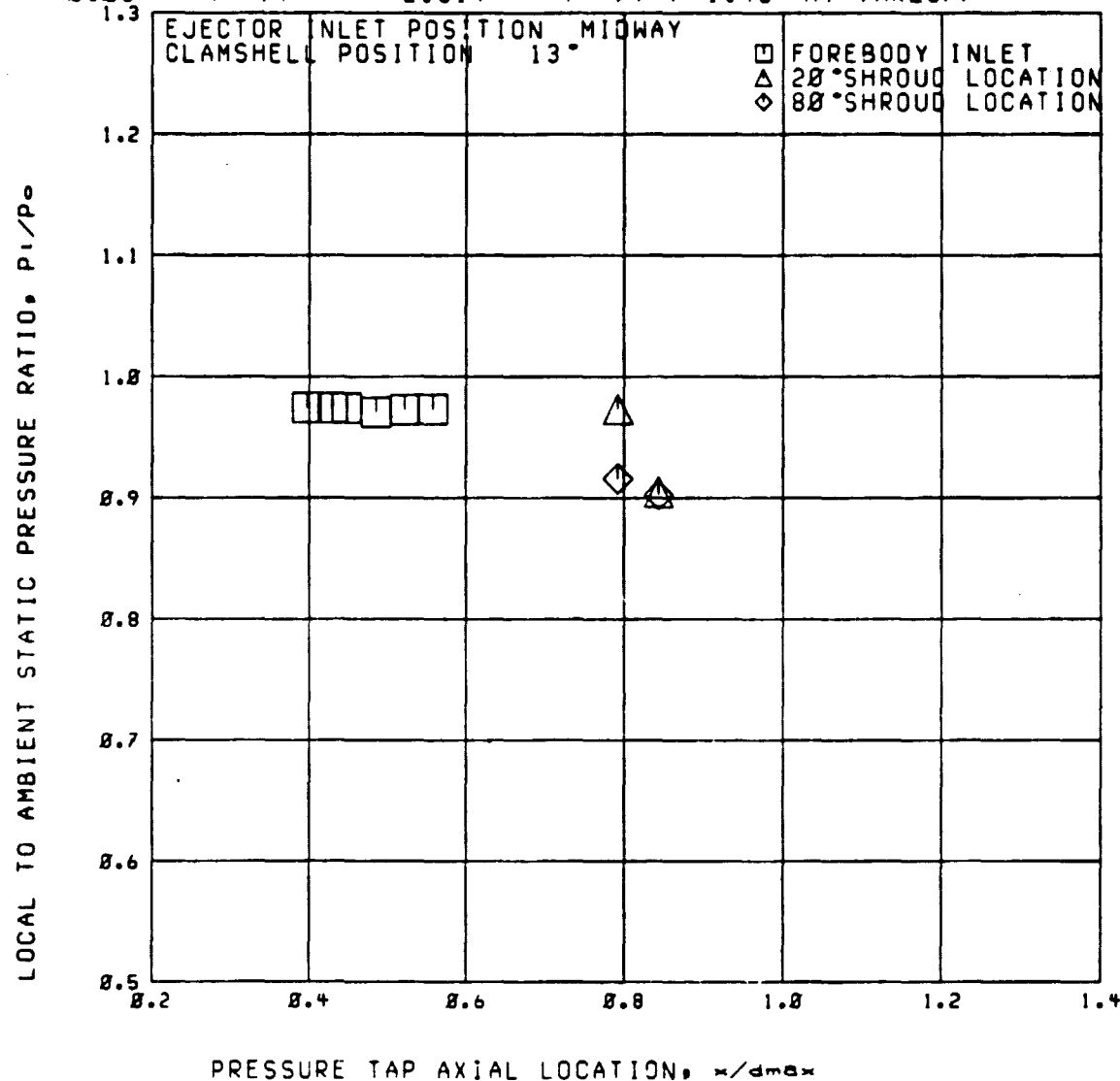


RUN 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS  
EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

RDG=2679

$M_0 = 0.83$   $P_{tr}/P_0 = 2.514$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF

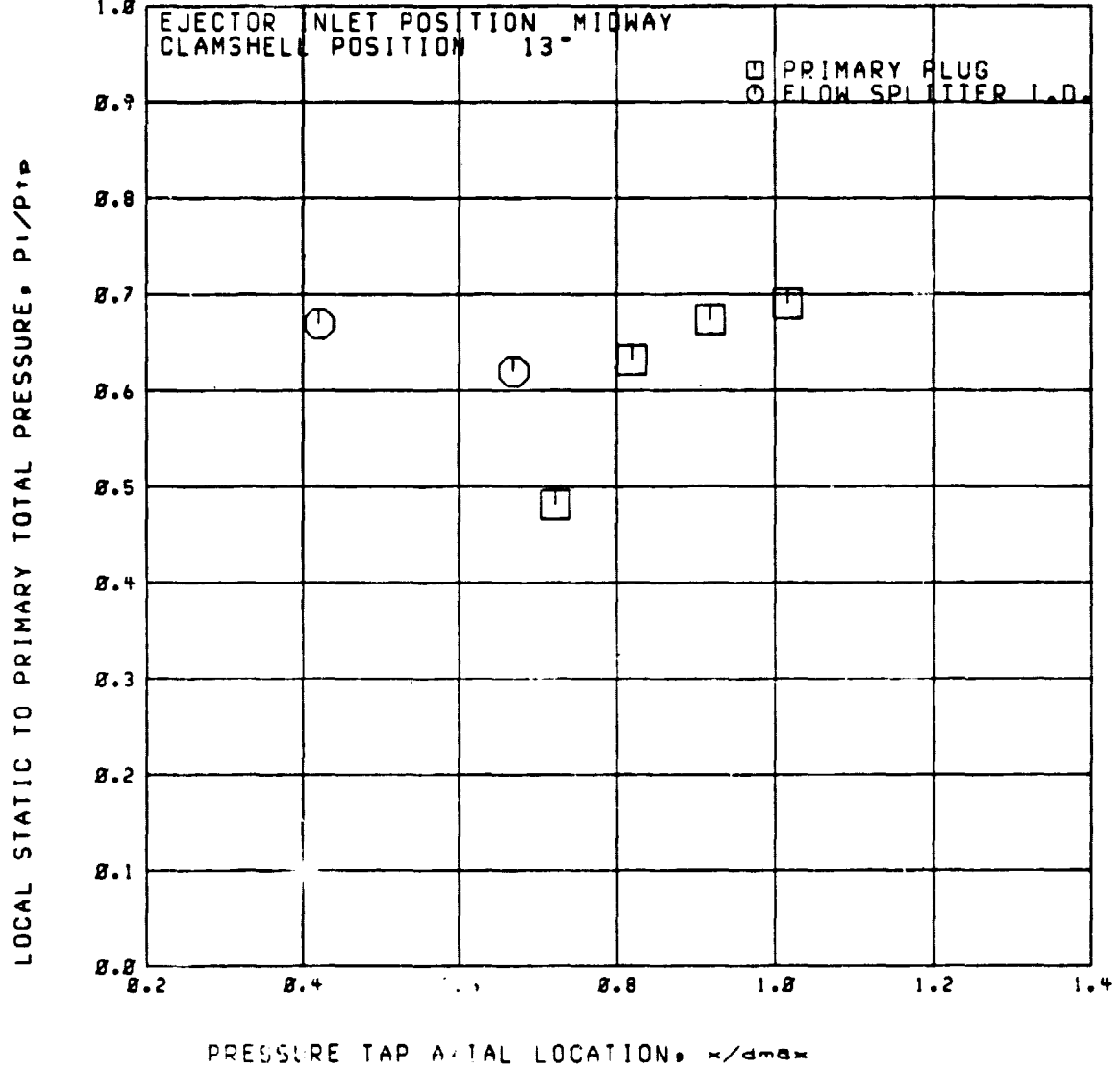


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2679

$M_0 = 0.02$   $P_{tr}/P_{02} = 2.118$   $P_{tr}/P_{tp} = 1.44$

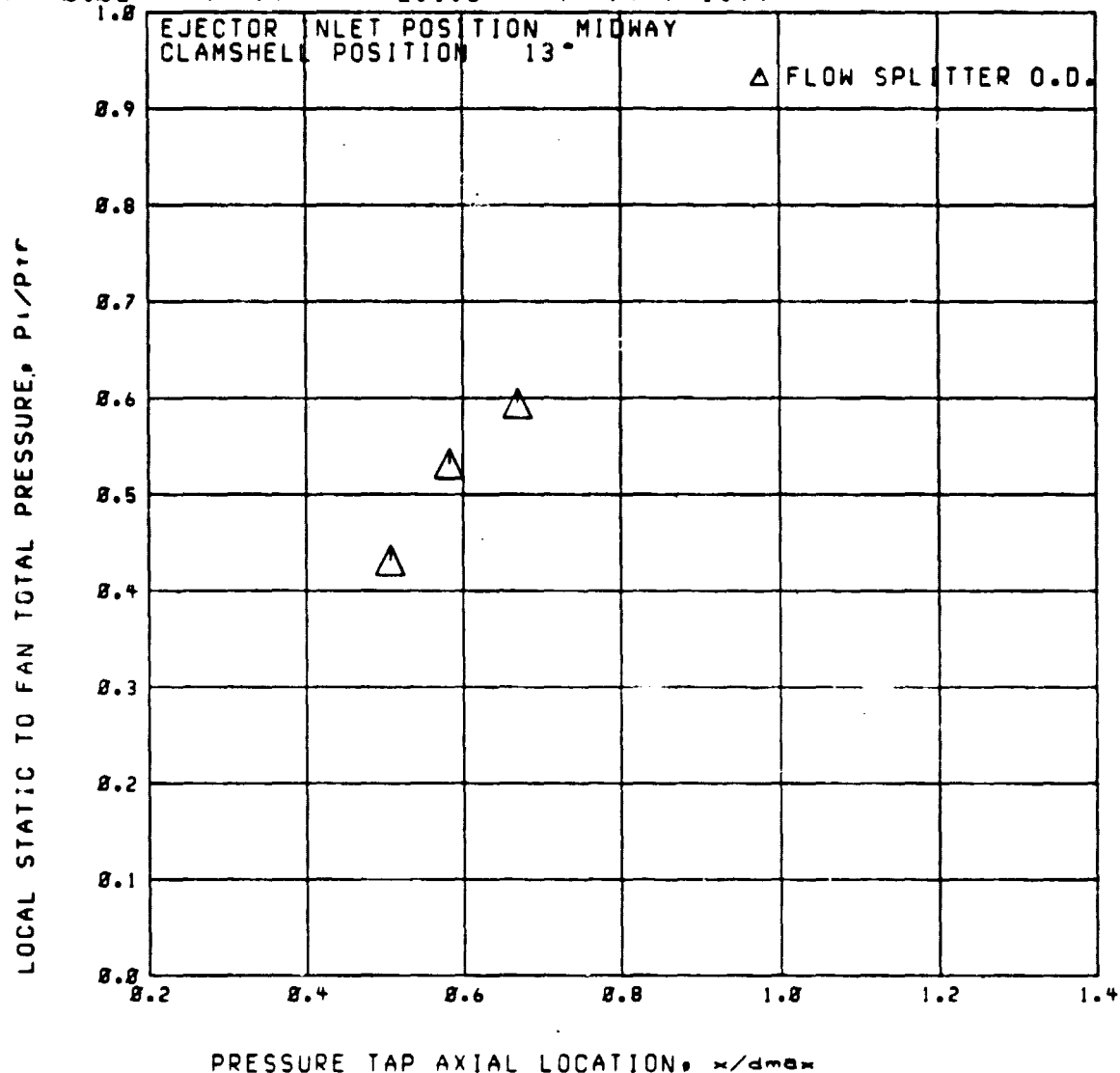


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2679

Mo = 0.02 P<sub>tr</sub>/P<sub>02</sub> = 2.118 P<sub>tr</sub>/P<sub>trp</sub> = 1.44

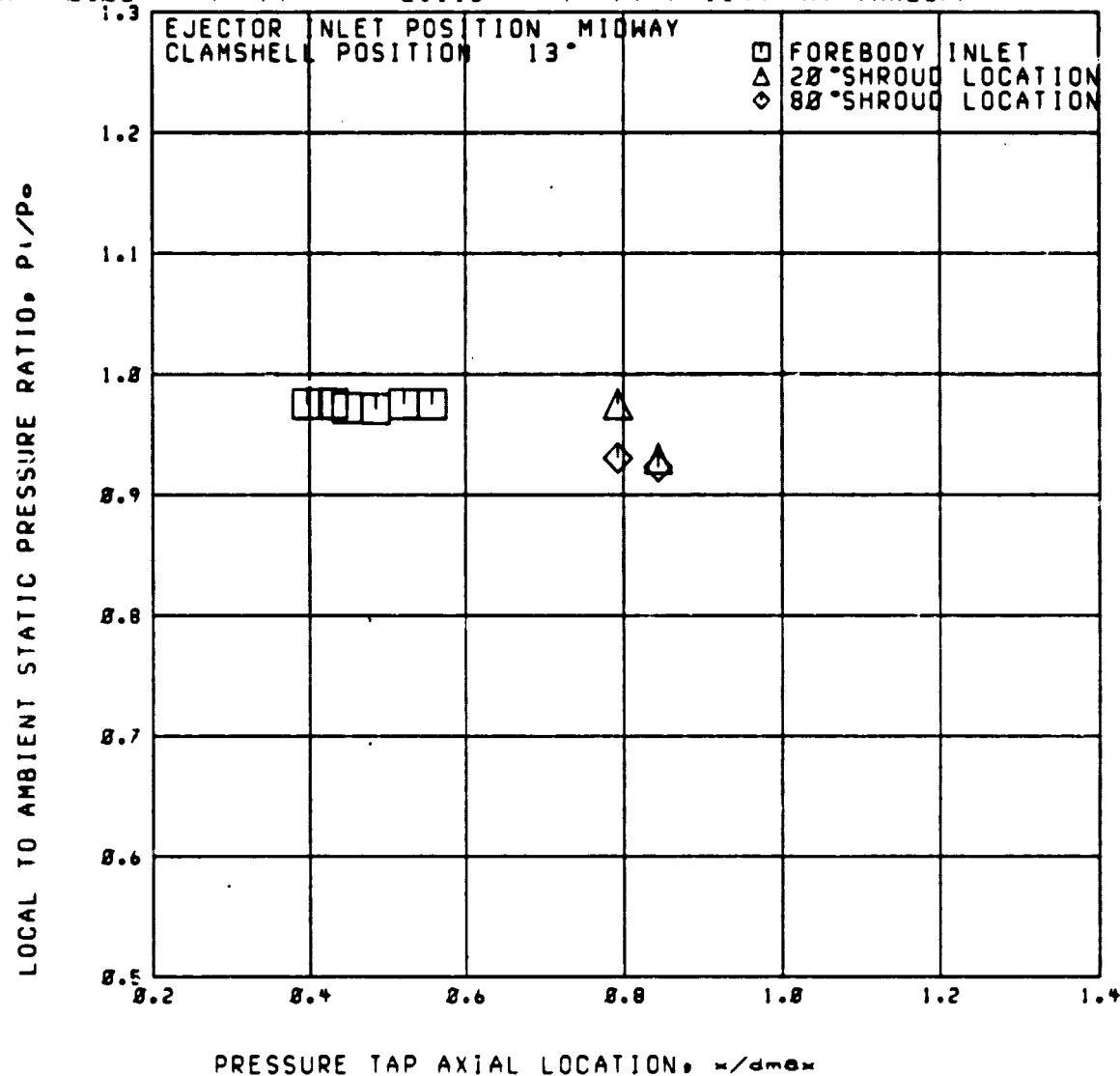


RUN 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

RDG=2679

$M_0 = 0.82$   $P_{tr}/P_0 = 2.118$   $P_{tr}/P_{tr0} = 1.44$  AT TAKEOFF

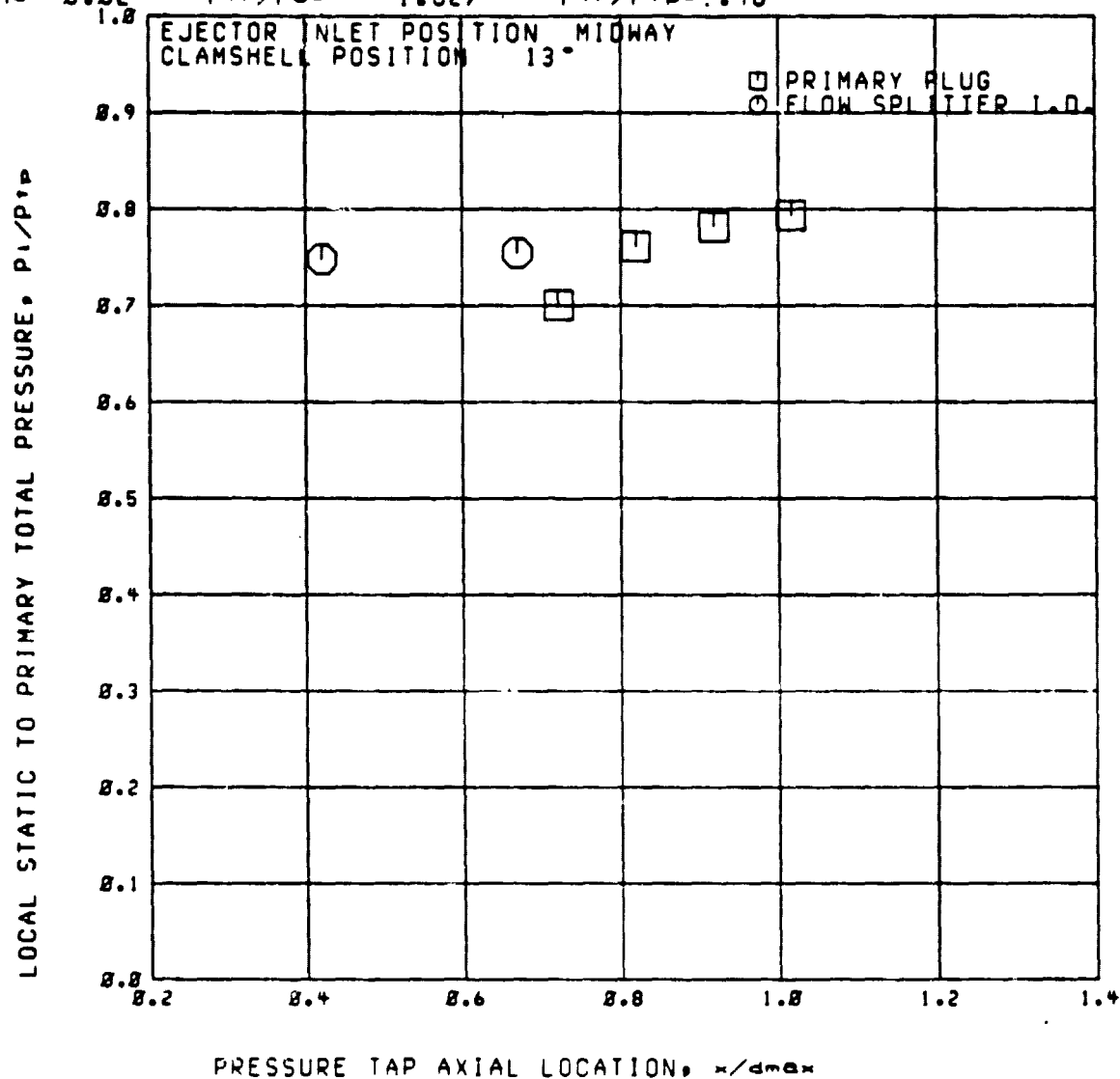


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2680

$M = 0.82$   $P_{t0}/P_{0\infty} = 1.827$   $P_{t0}/P_{t\infty} = 1.46$



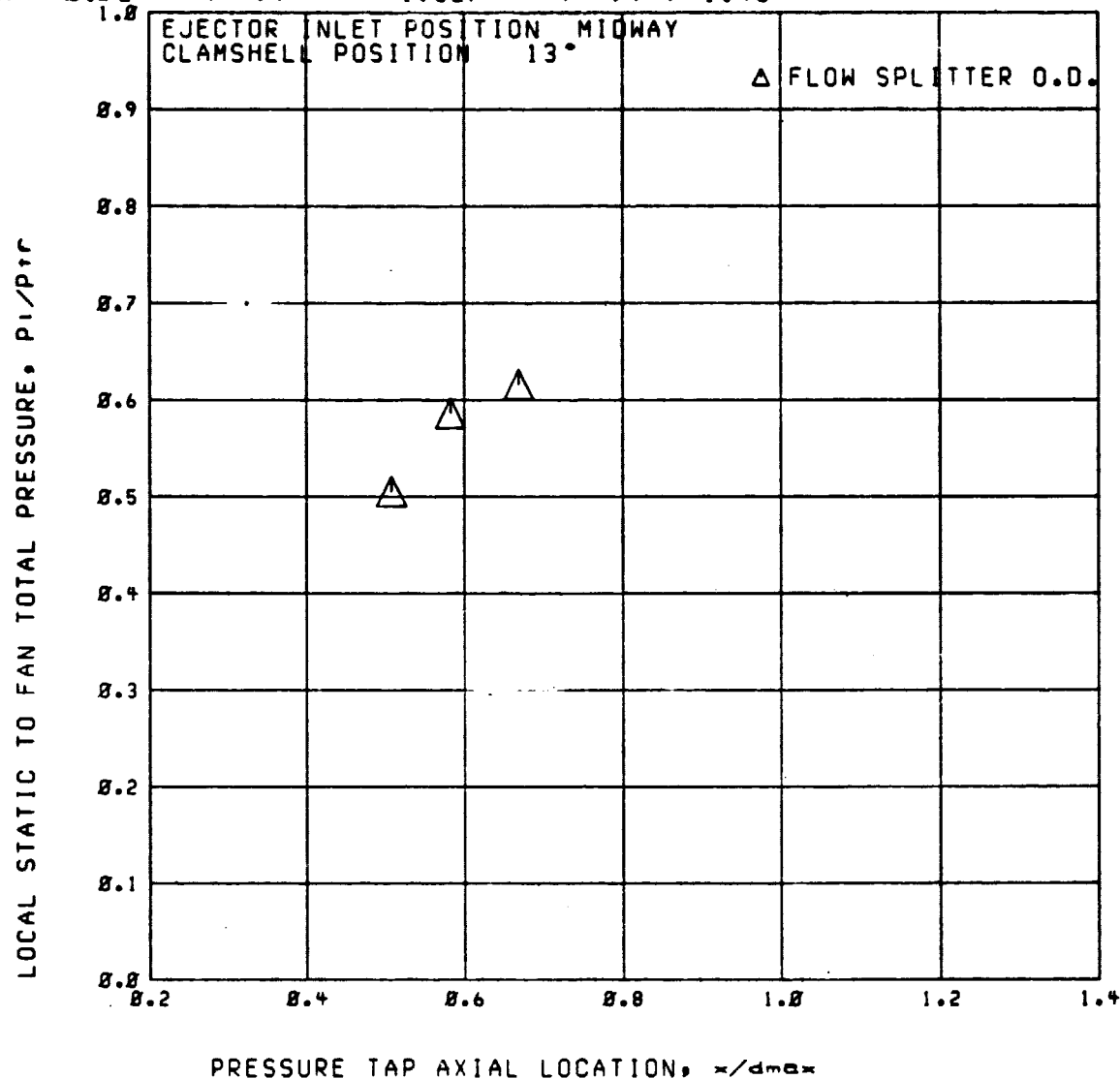


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2680

$M_o = 0.72$   $P_{tr}/P_o = 1.827$   $P_{tr}/P_{tp} = 1.46$



C-4

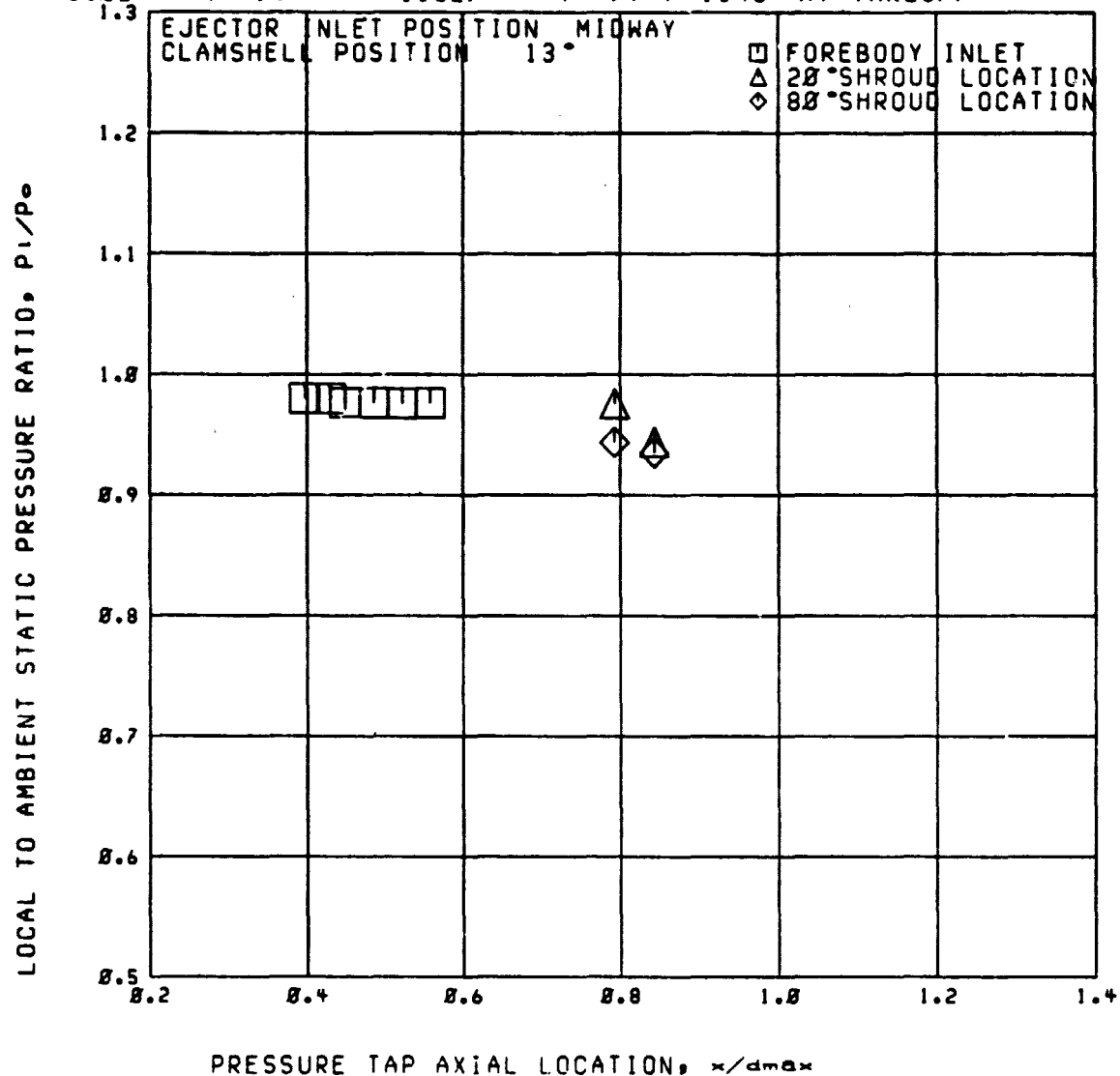
RUN 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS

RDG=2680

EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.82$   $P_{tr}/P_0 = 1.827$   $P_{tr}/P_{tp} = 1.46$  AT TAKEOFF

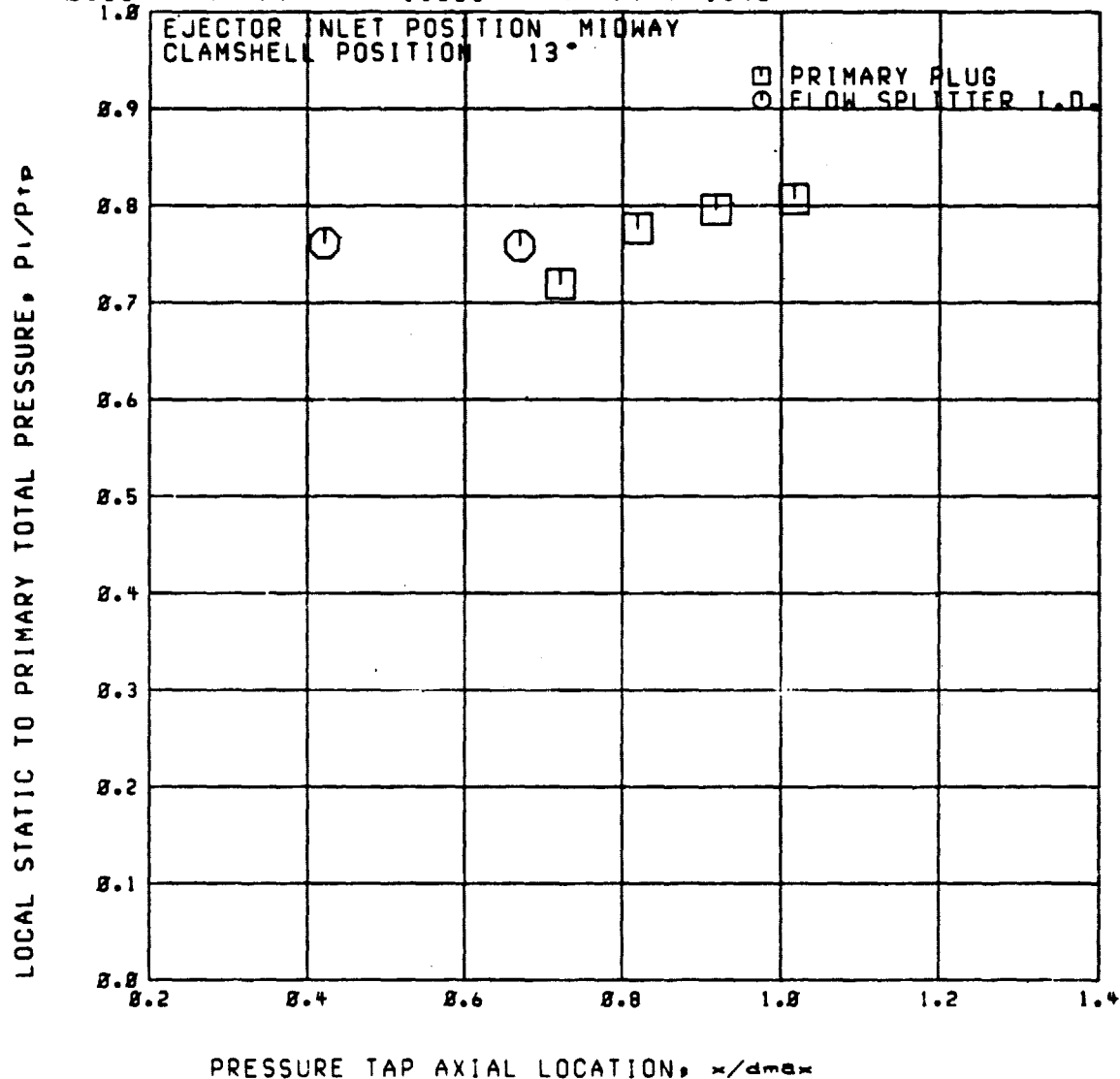


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2682

$M_0 = 0.36$   $P_{tr}/P_0 = 1.855$   $P_{tr}/P_{tr} = 1.45$

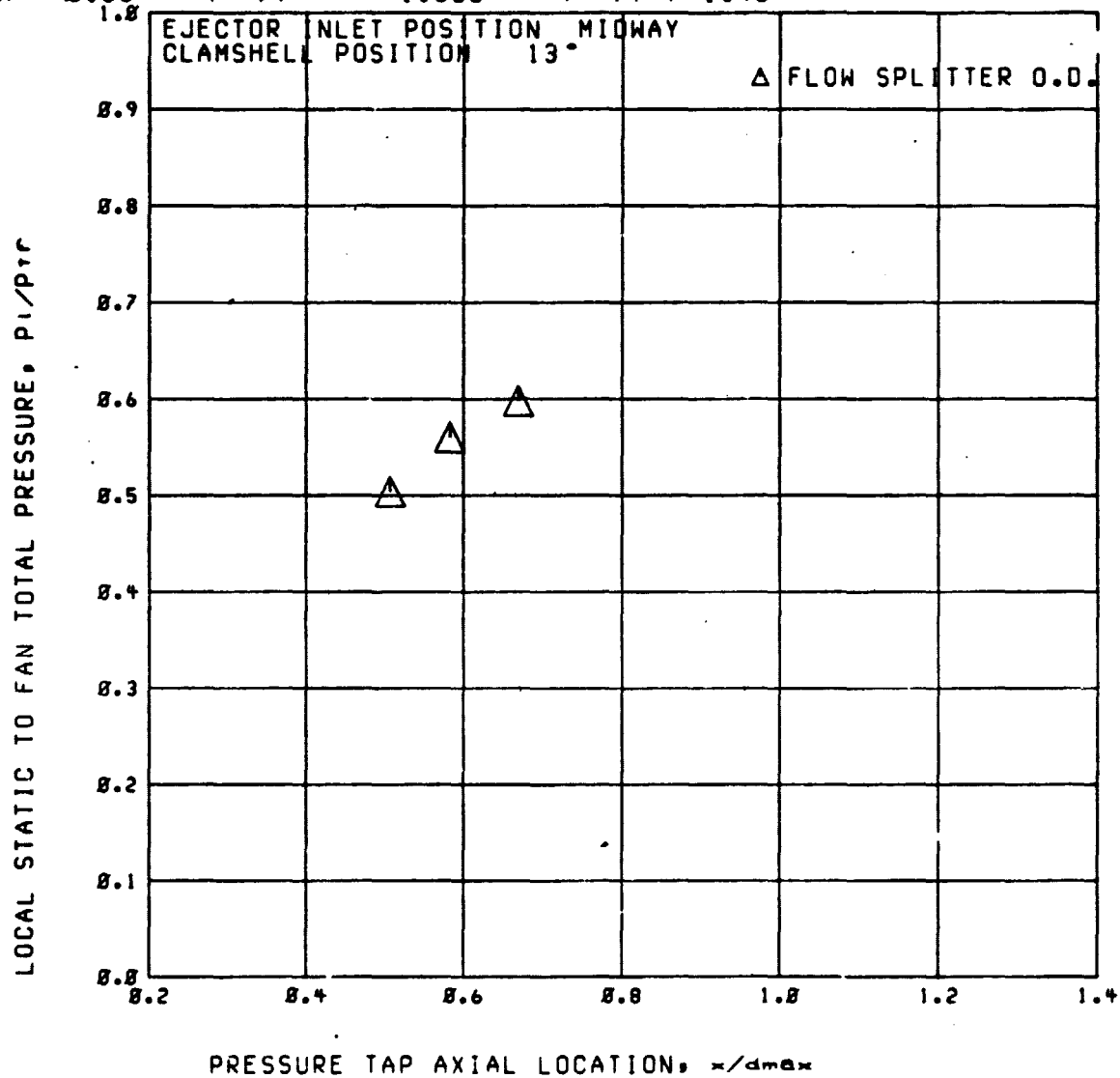


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2682

$M_0 = 0.36$   $P_{tr}/P_0 = 1.855$   $P_{tr}/P_{tr} = 1.45$

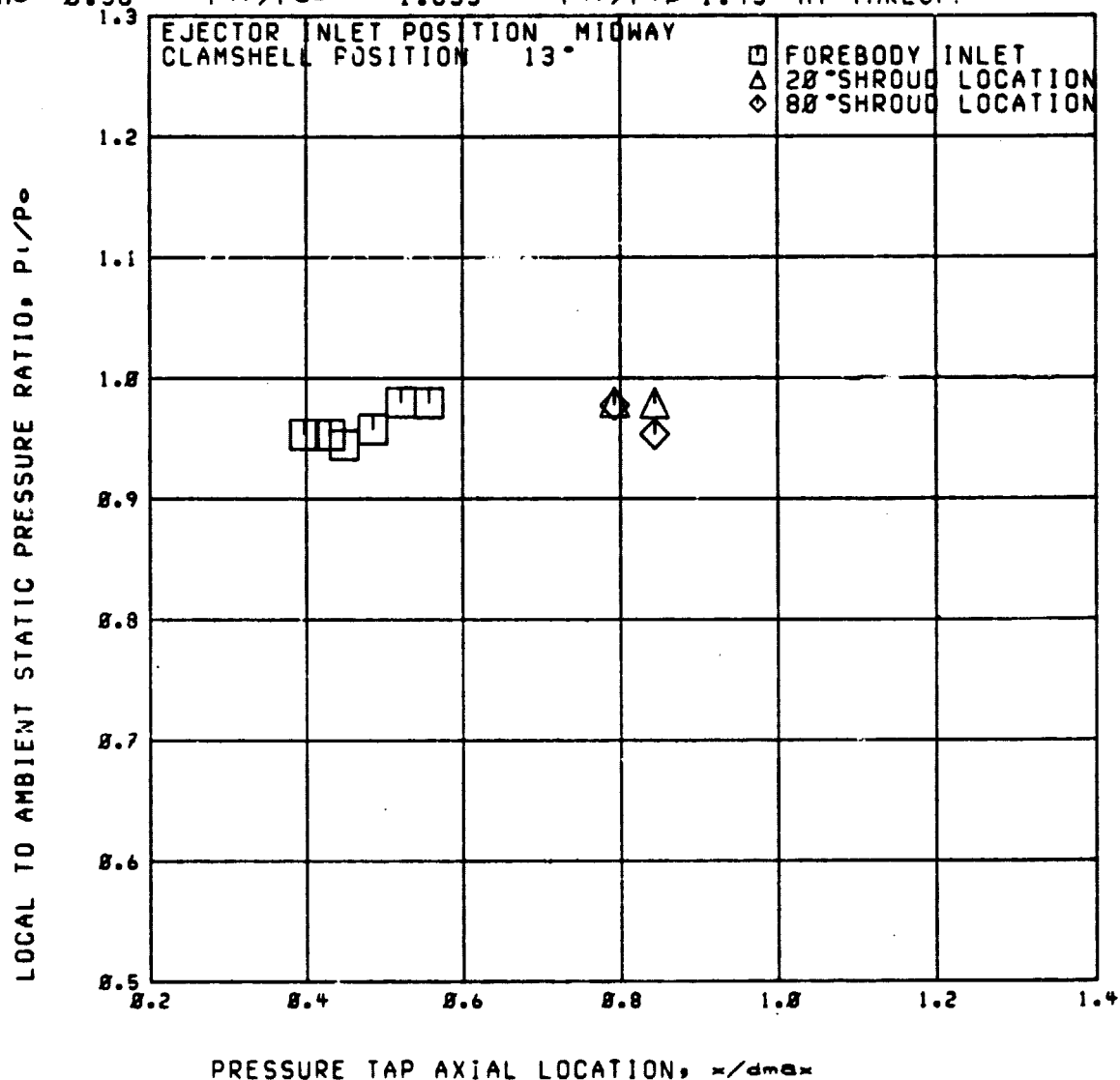


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

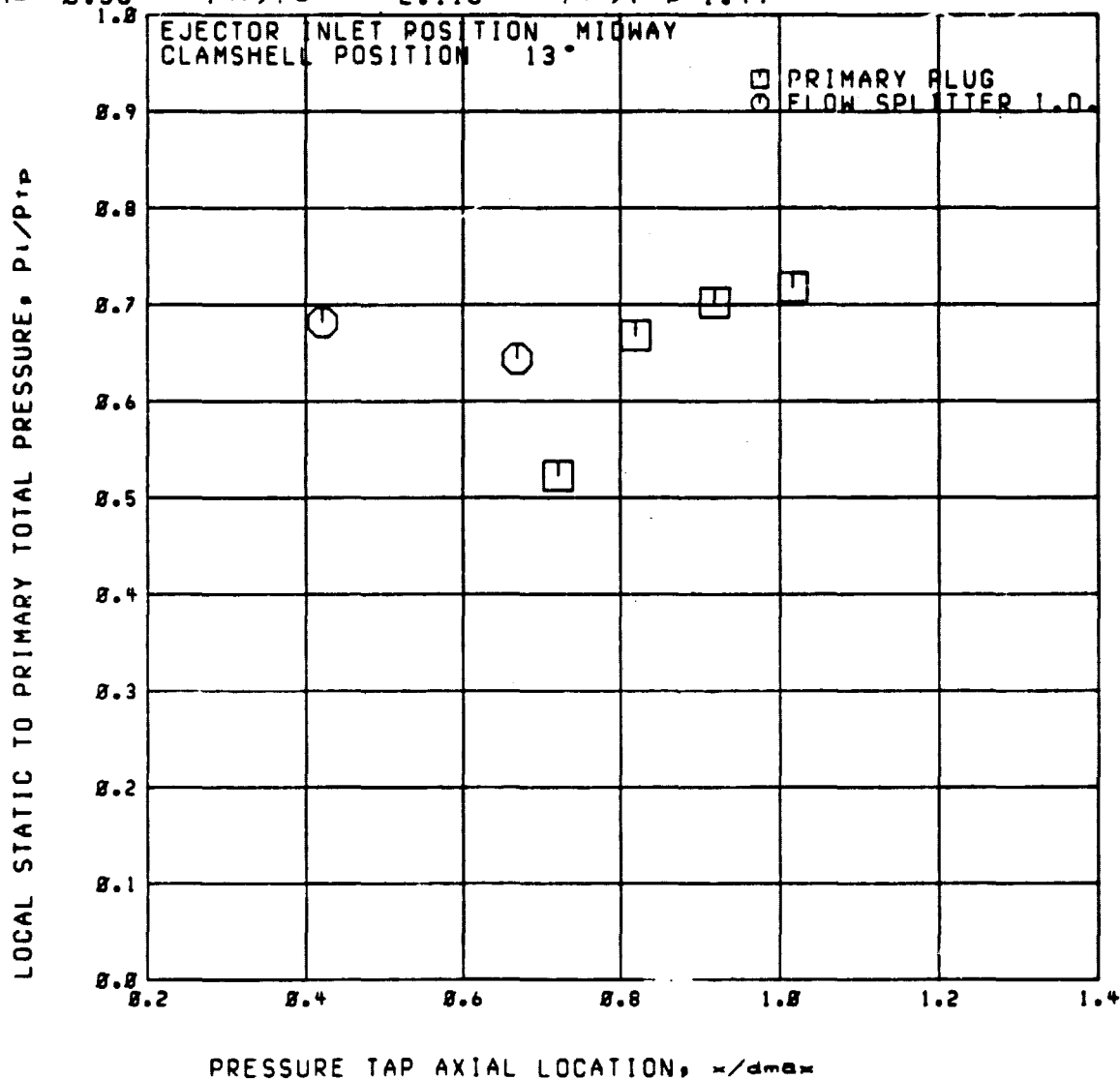
ROG=2682

$M_o = 0.36$   $P_{tr}/P_o = 1.855$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



RUN 59

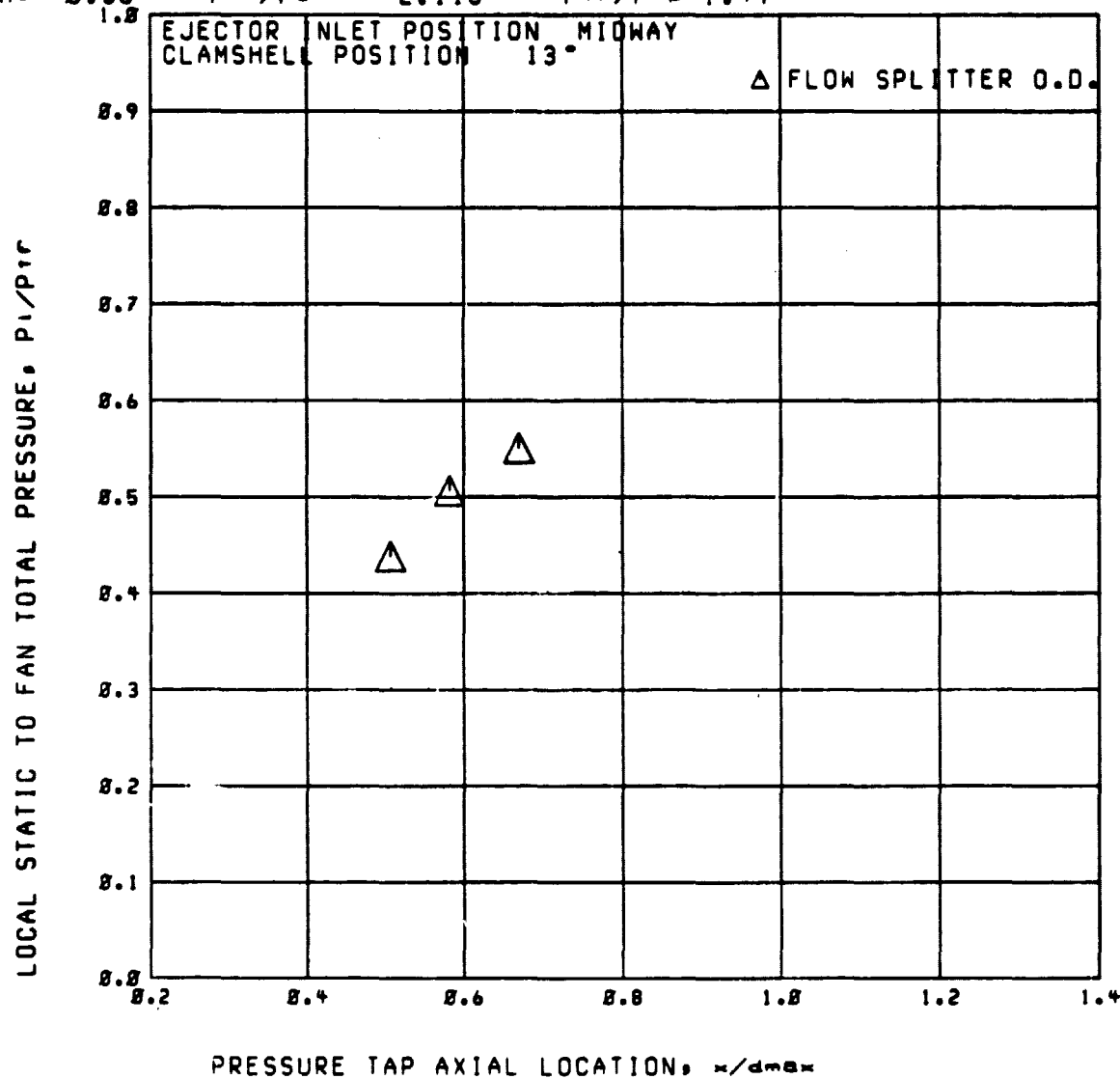
C3 20 DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS RDG=2683  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF  
 $M_o = 0.36$   $P_{ir}/P_o = 2.118$   $P_{ir}/P_{ip} = 1.44$



Run 59

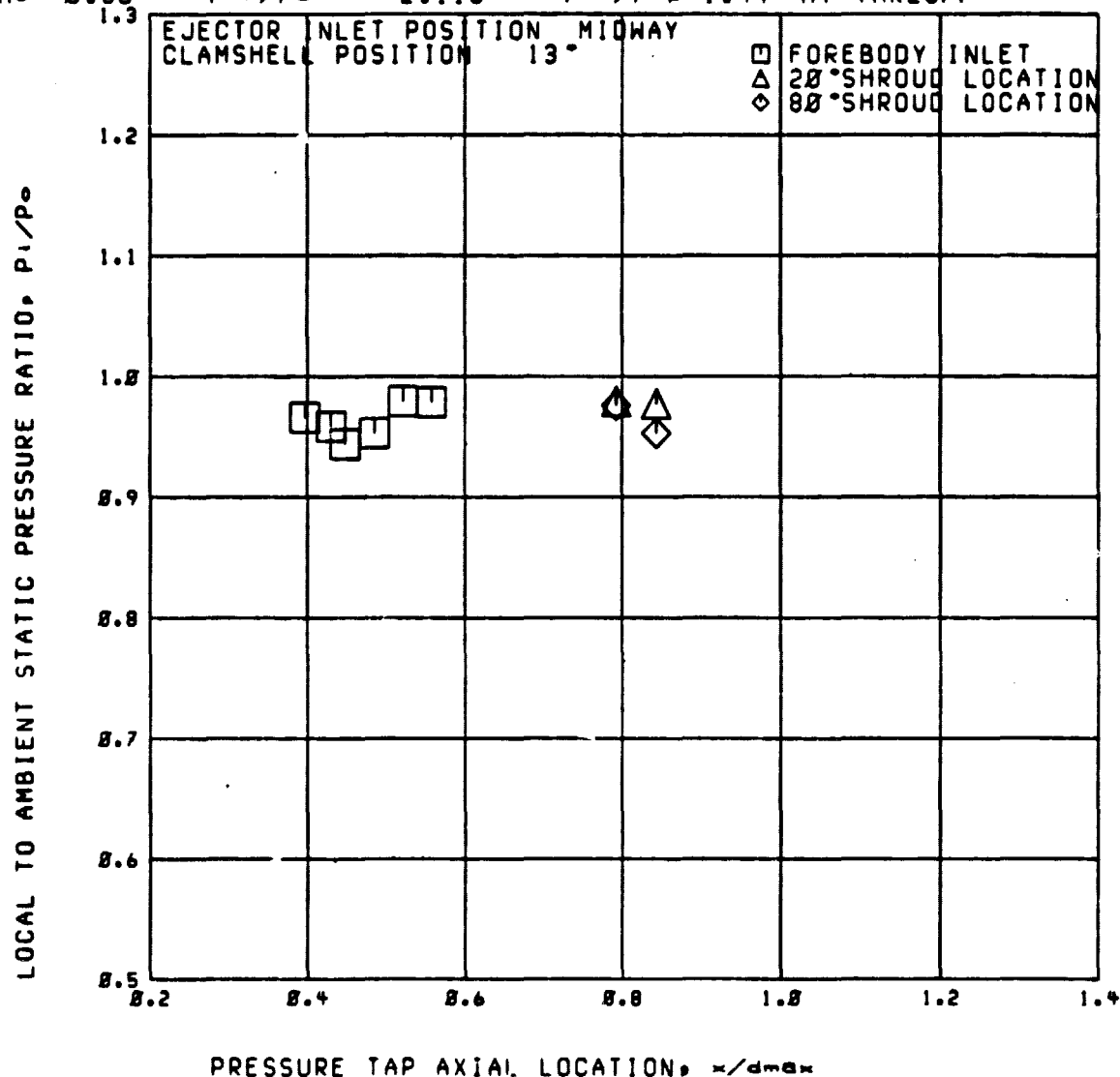
C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS ROD=2683  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{ir}/P_0 = 2.118$   $P_{ir}/P_{ie} = 1.44$



Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS RDG=2683  
 EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION  
 $M_\infty = 0.36$   $P_{t0}/P_\infty = 2.118$   $P_{t0}/P_{t0} = 1.44$  AT TAKEOFF

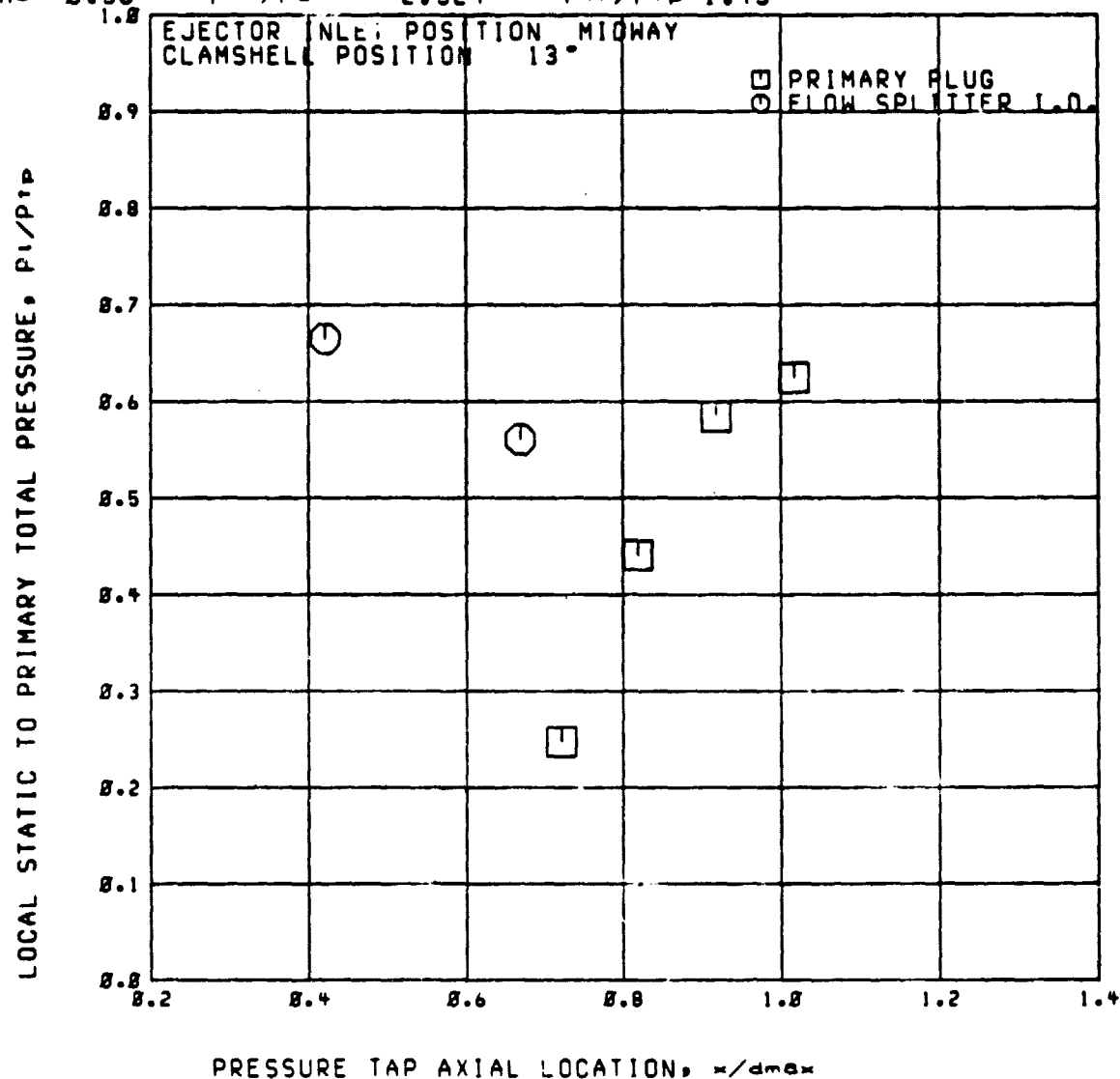




RUN 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS RDG=2684  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{t0}/P_0 = 2.524$   $P_{t0}/P_{t0} = 1.45$

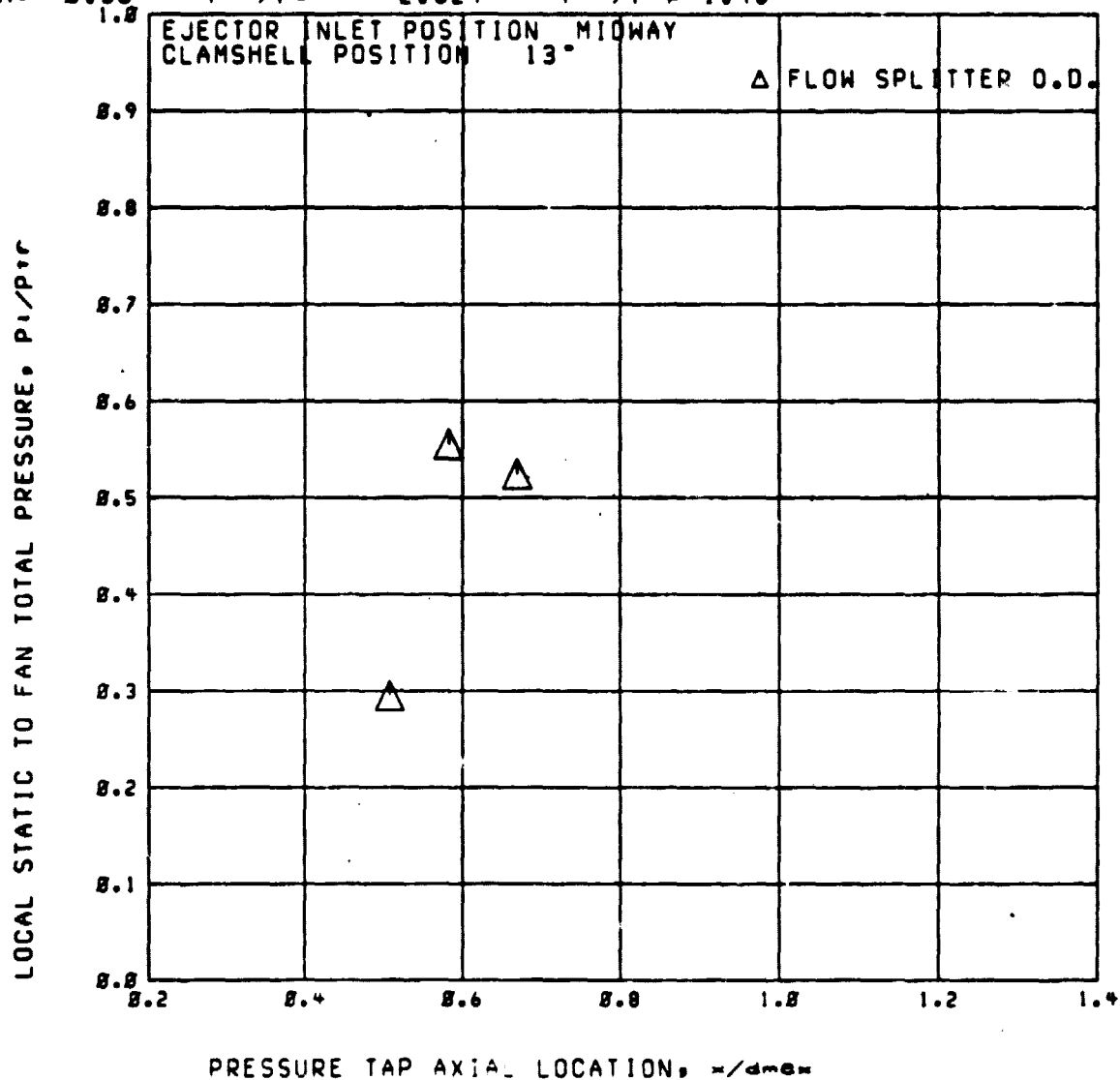


RUN 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2684

Mo = 0.36 P<sub>tr</sub>/P<sub>o</sub> = 2.524 P<sub>tr</sub>/P<sub>tp</sub> = 1.45

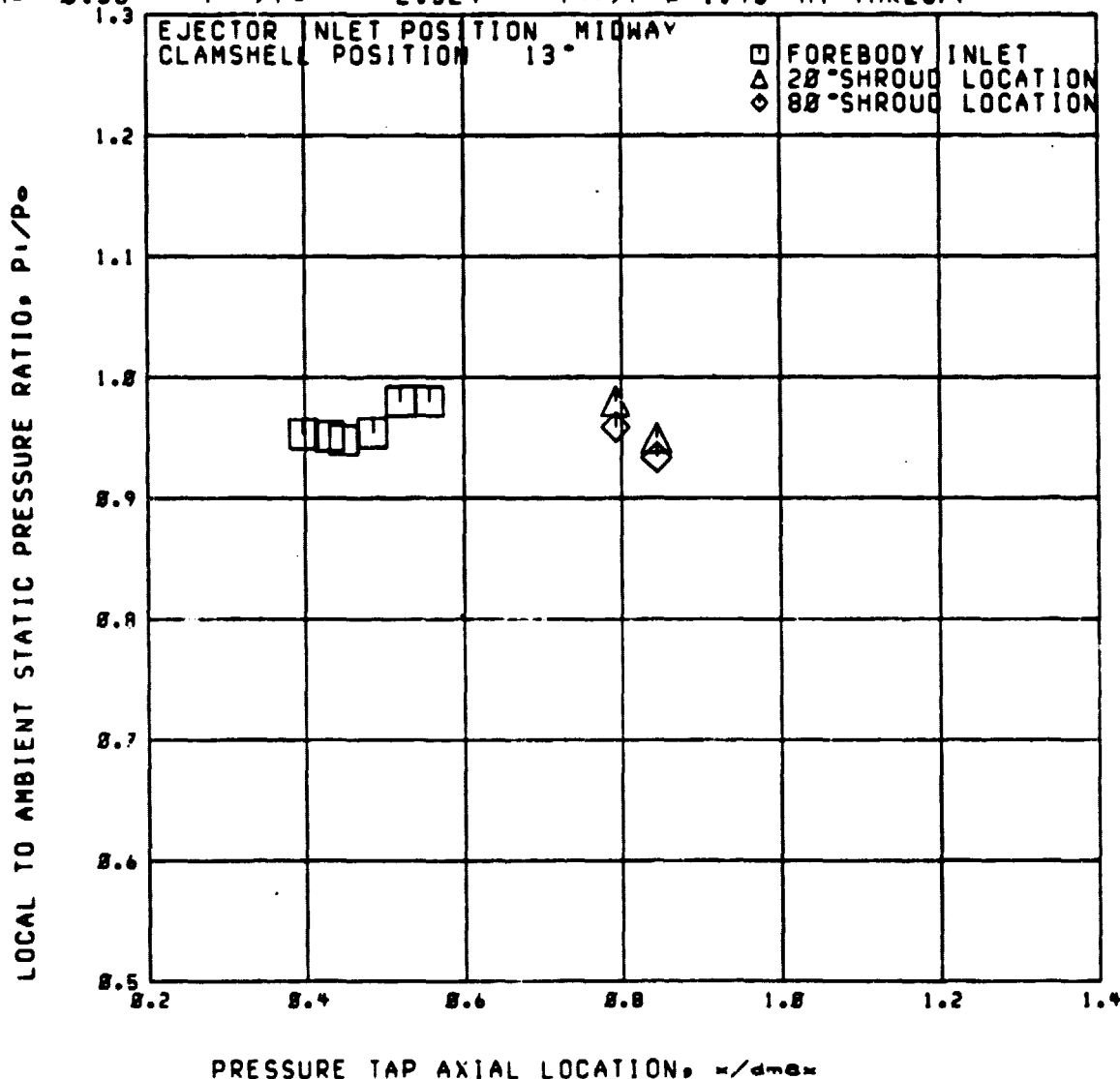


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS  
EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

RDG-2684

$M = 0.36$   $P_{tr}/P_o = 2.524$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



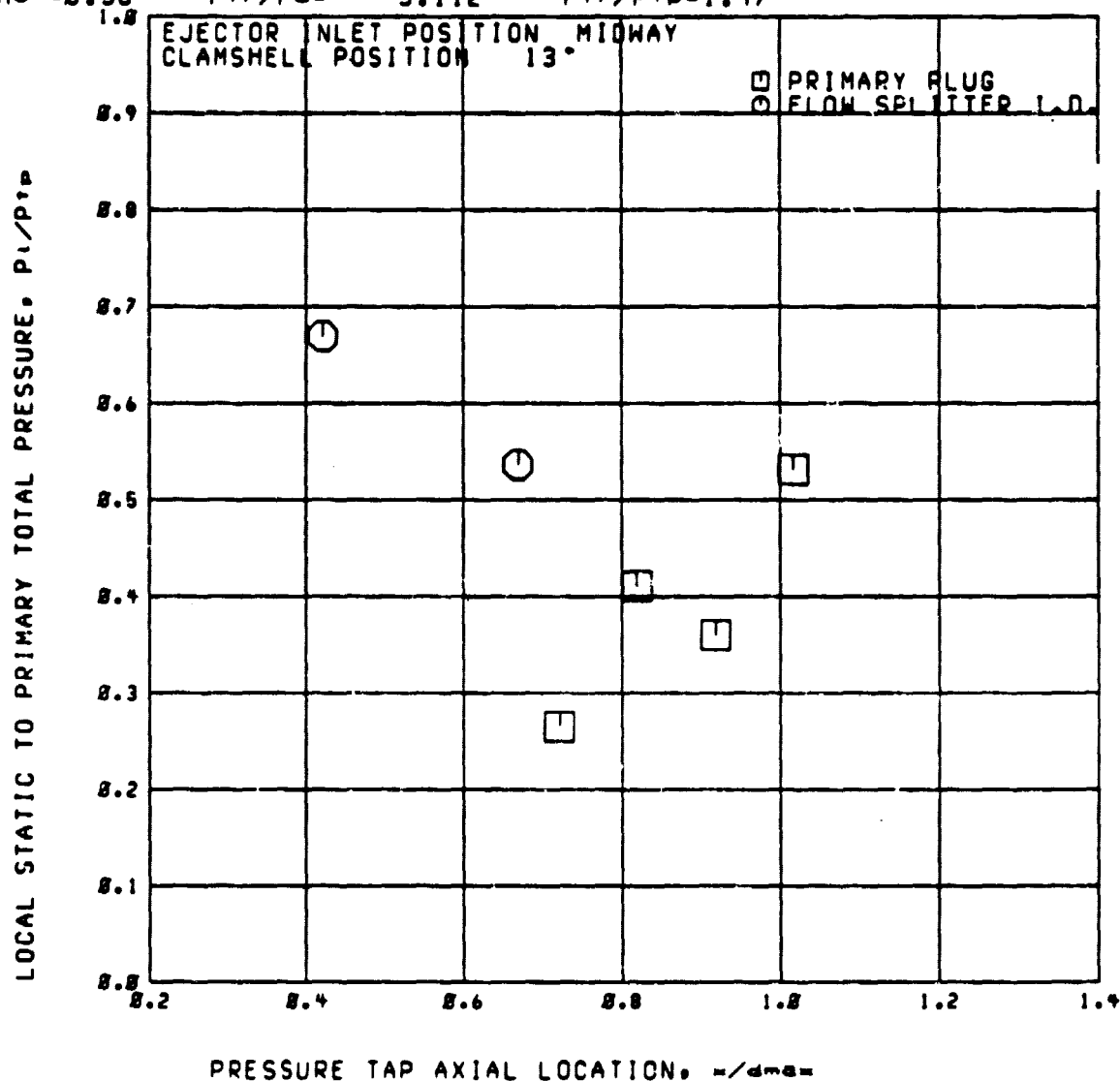
ORIGINAL PAGE 1  
OF POOR QUALITY

Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2685

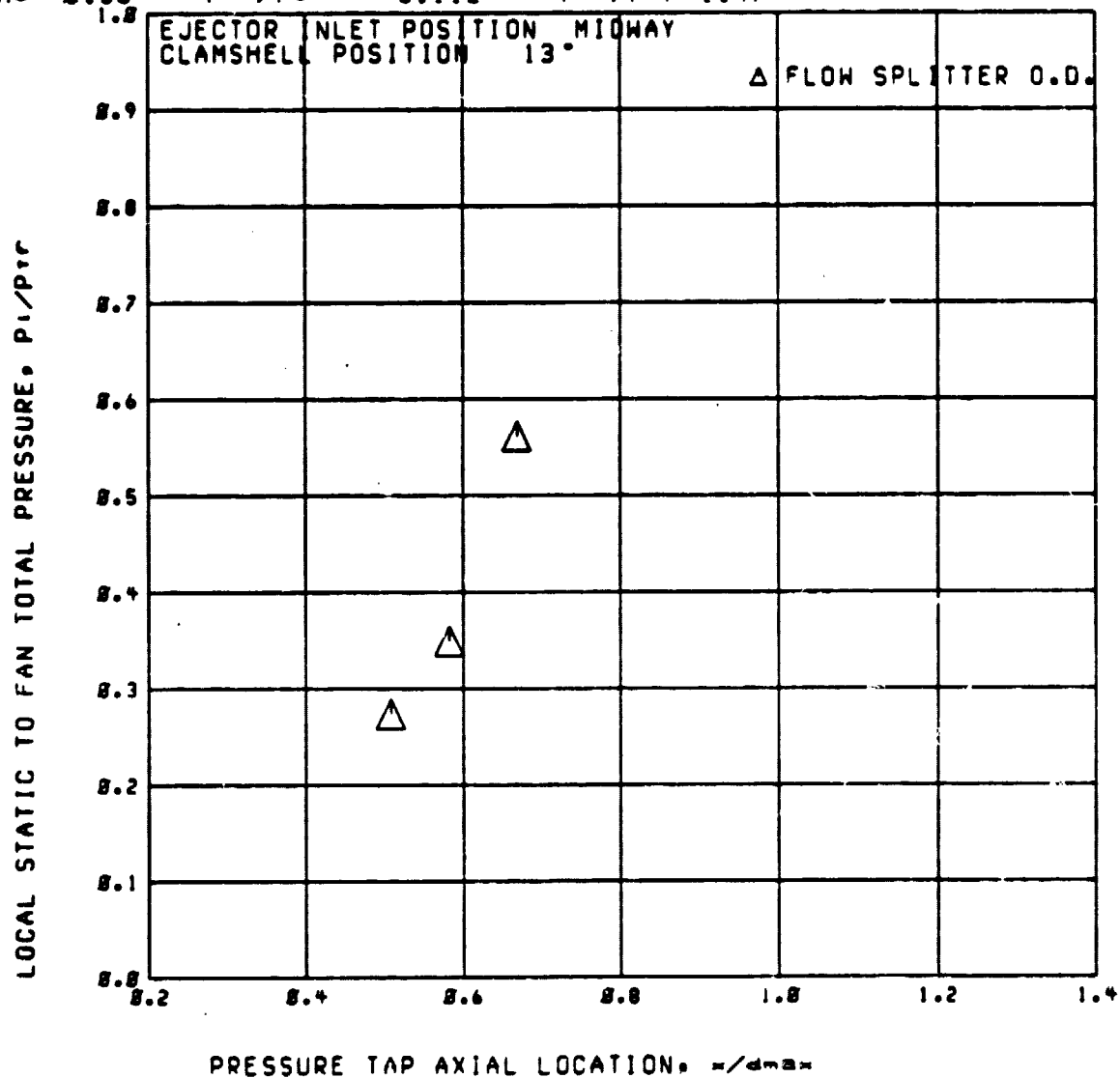
$M = 8.36$   $P_{ir}/P_{oe} = 3.112$   $P_{ir}/P_{ip} = 1.47$



Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS ROD-2685  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

Mo = 0.36  $P_{t/c}/P_{\infty}$  = 3.112  $P_{t/c}/P_{t/p}$  = 1.47

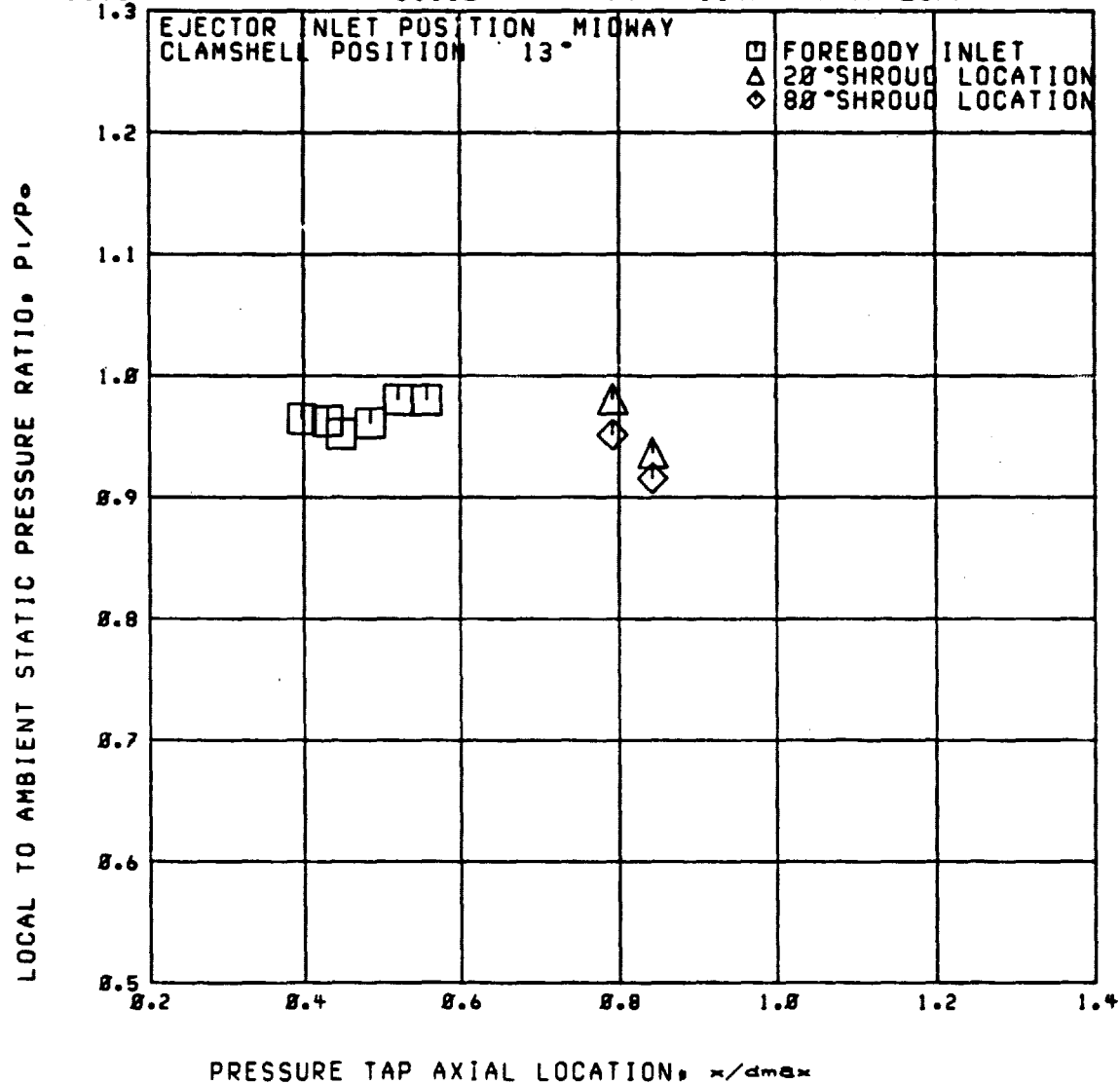


RUN 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

RDG=2685

$M_0 = 0.36$   $P_{tr}/P_0 = 3.112$   $P_{tr}/P_{tr0} = 1.47$  AT TAKEOFF

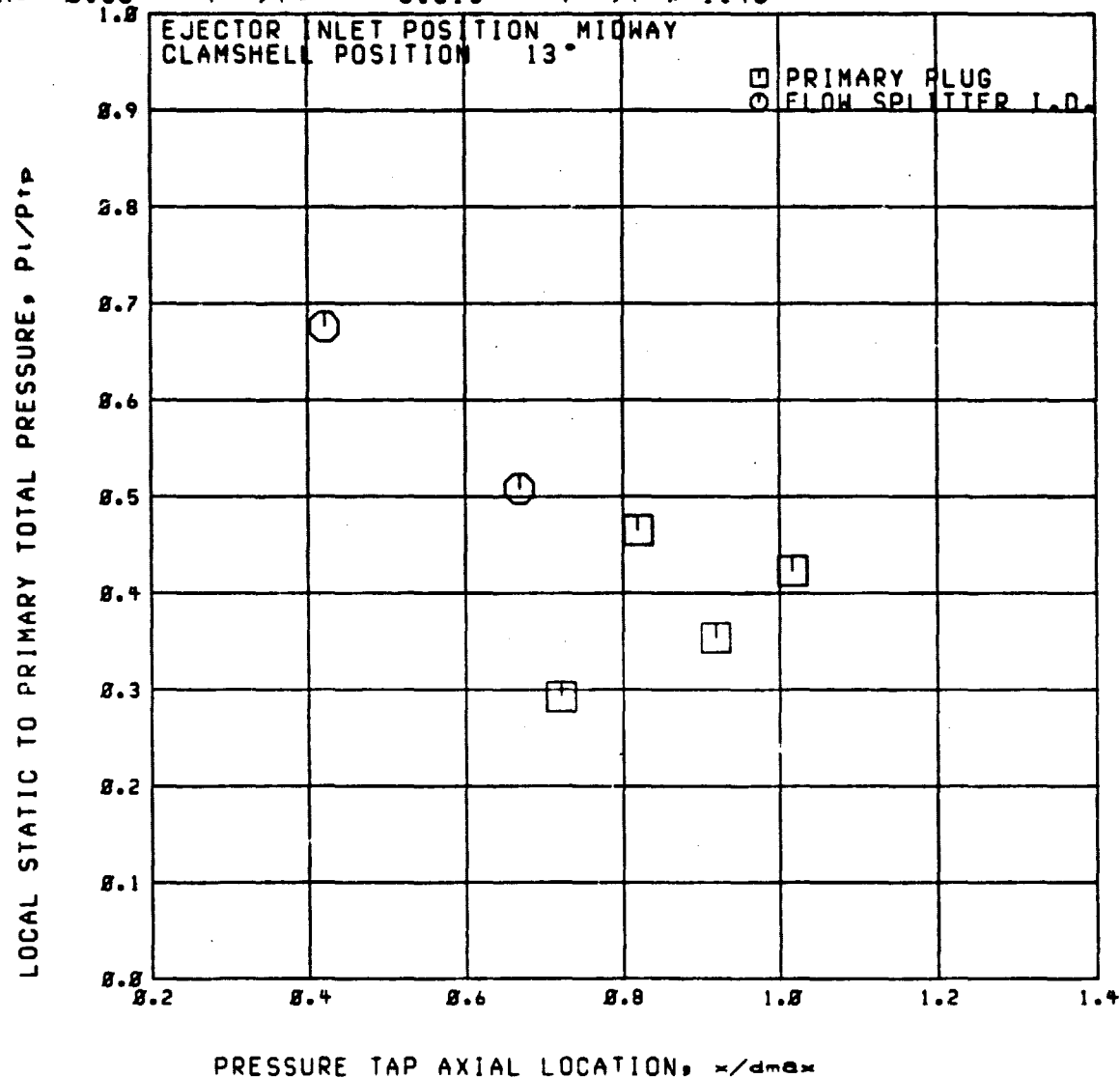


RUN 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2686

$M = 0.36$   $P_{tr}/P_o = 3.618$   $P_{tr}/P_{trp} = 1.45$

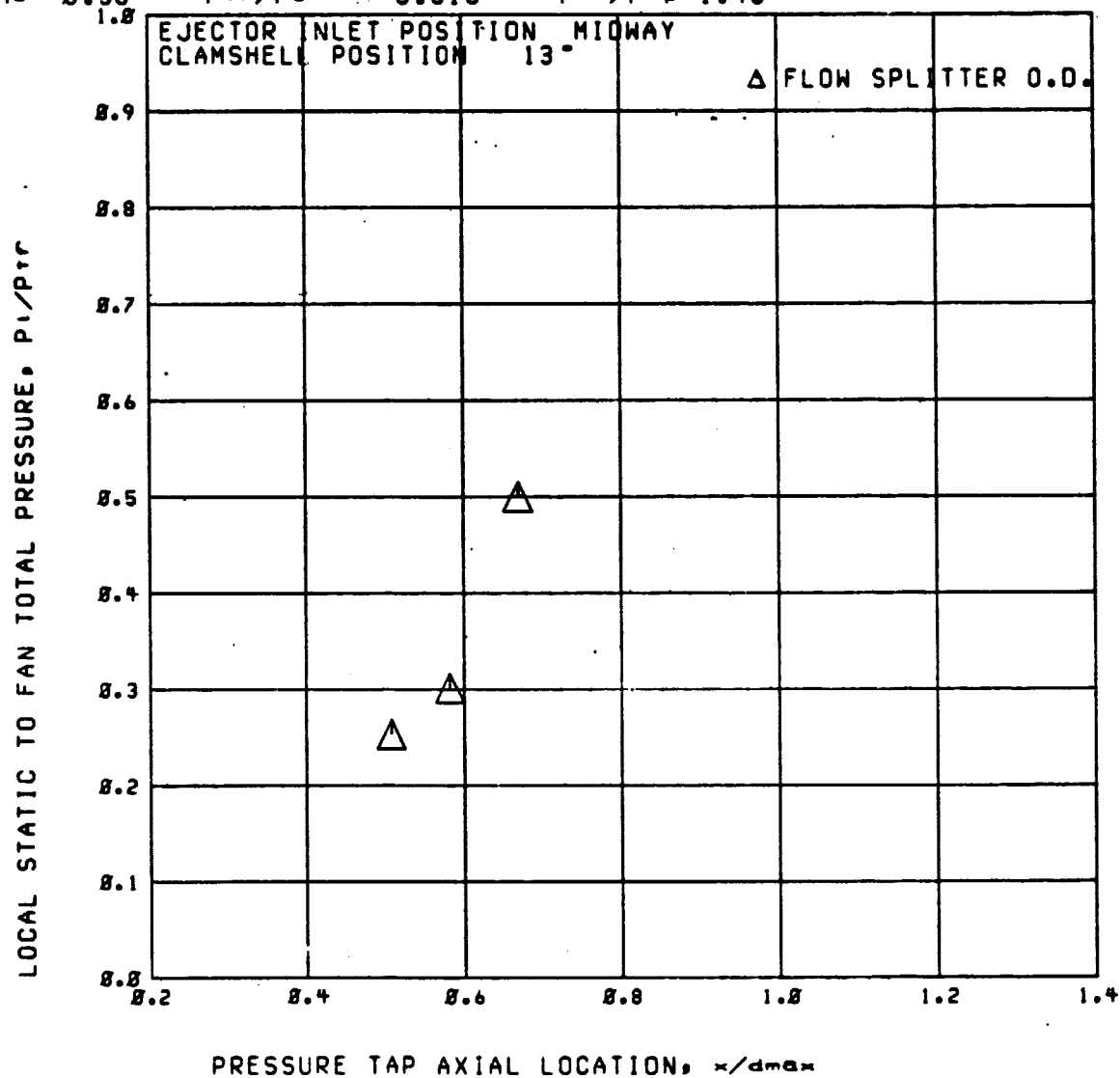


Run 59

C3 28DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2686

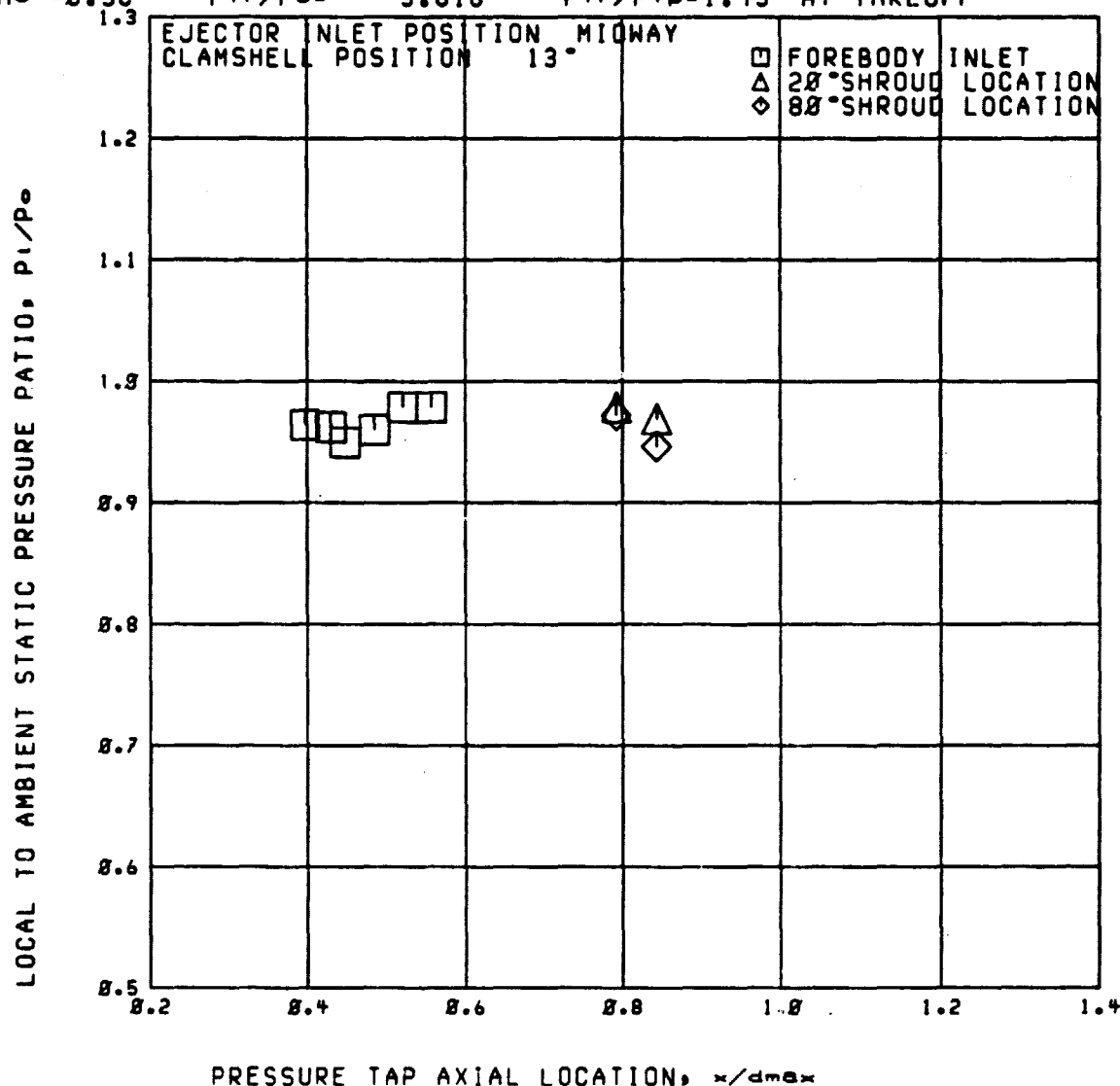
$M_0 = 0.36$   $P_{tr}/P_0 = 3.618$   $P_{tr}/P_{tp} = 1.45$





Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS ROG=2686  
 EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION  
 $M_o = 0.36$   $P_{tr}/P_o = 3.618$   $P_{tr}/P_{tp} = 1.45$  AT TAKEOFF

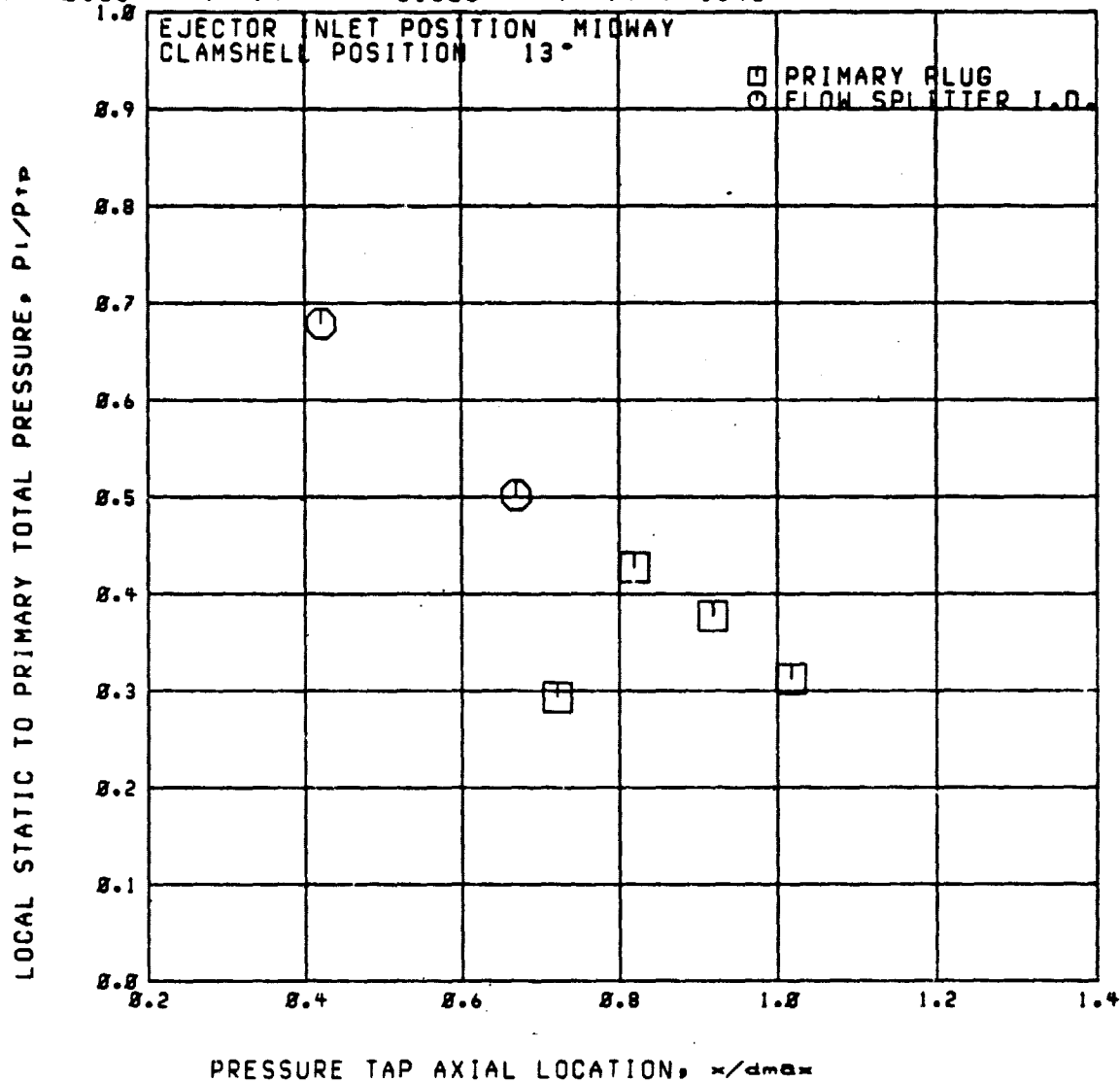


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2687

$M_o = 0.36$   $P_{tr}/P_o = 3.826$   $P_{tr}/P_{tp} = 1.46$

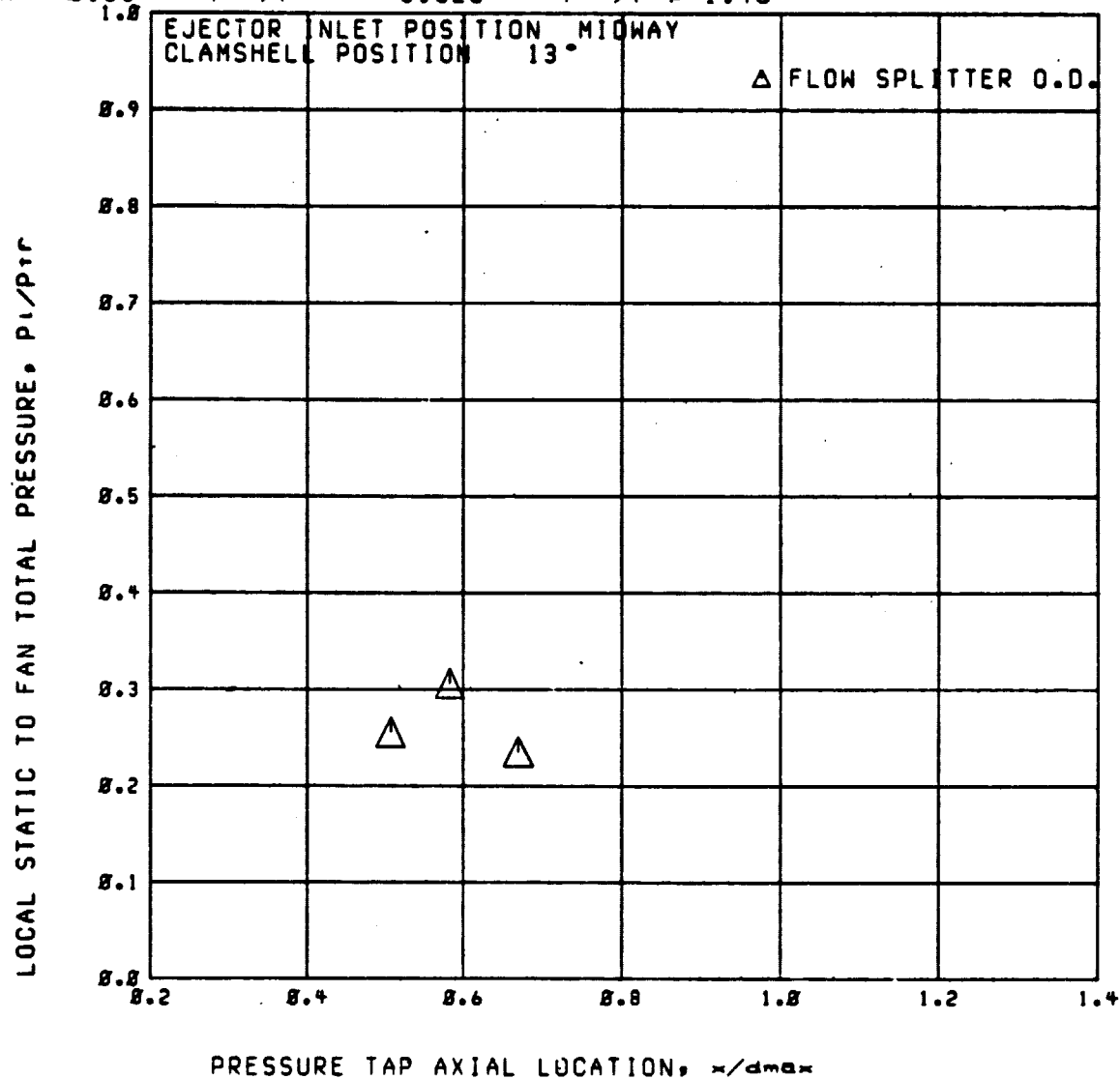


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2687

$M_0 = 0.36$   $P_{tr}/P_0 = 3.826$   $P_{tr}/P_{tp} = 1.46$

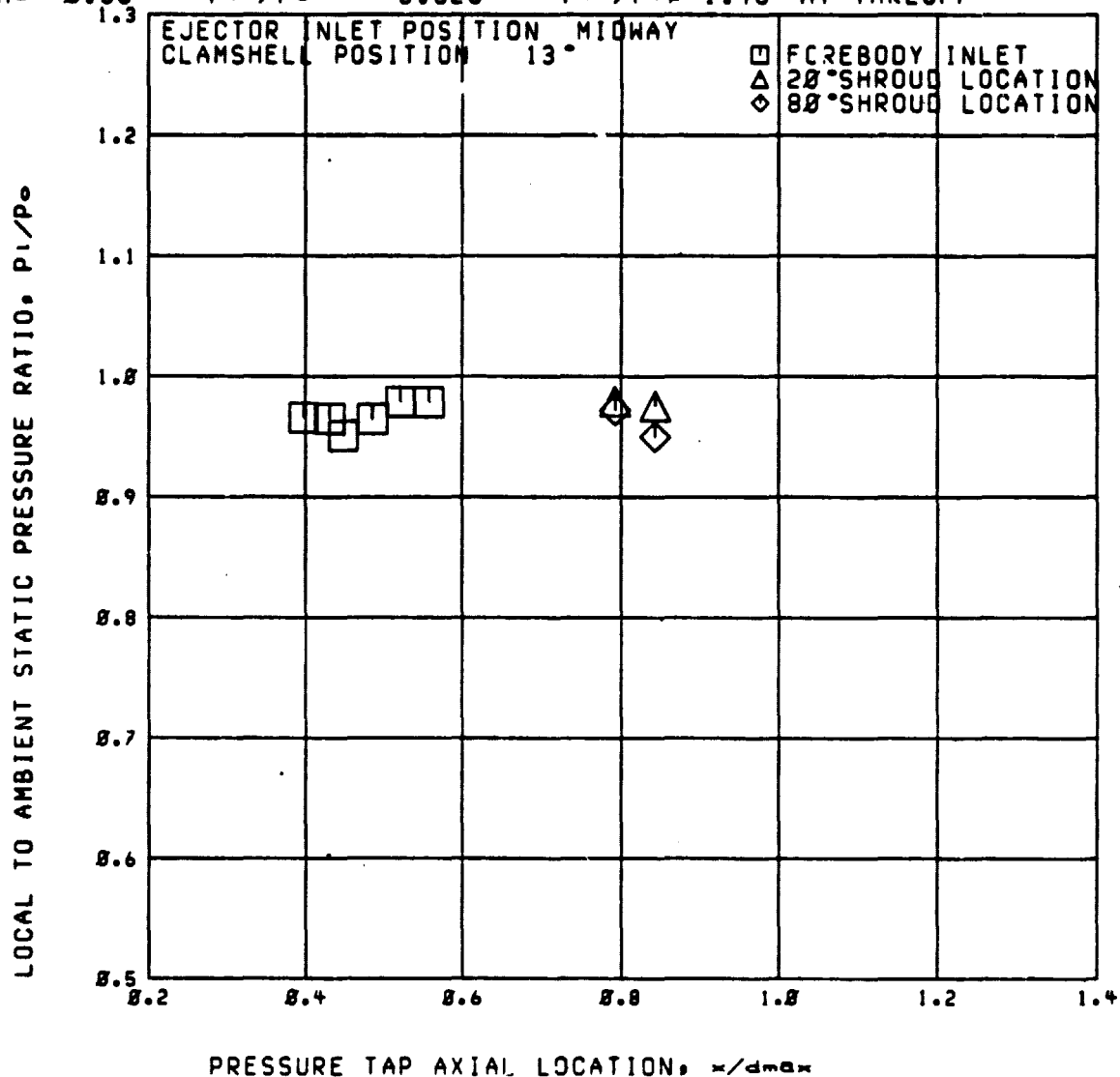


Run 59

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

RDG=2687

$M = 0.36$   $P_{t0}/P_{\infty} = 3.826$   $P_{t0}/P_{t\infty} = 1.46$  AT TAKEOFF



R05, 2694-2710

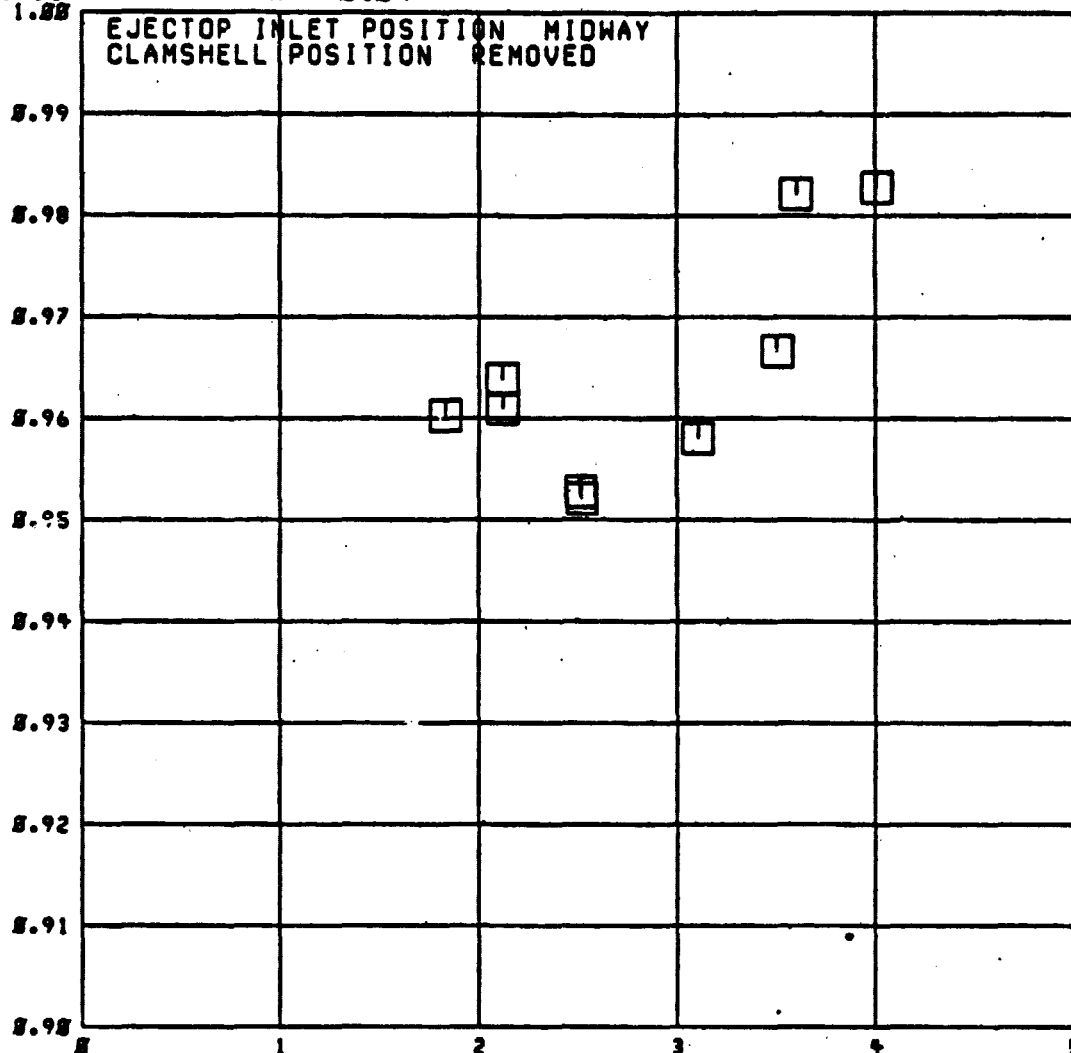
C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS  
TAKEOFF

$P_{t2}/P_{t1} = 1.46$

RUN 68

$M = 2.84$

NOZZLE GROSS THRUST COEFFICIENT, CFP1



FAN NOZZLE PRESSURE RATIO, PTF/PO

ORIGINAL PAGE 1  
OF POOR QUALITY

ROG. 2694-2710

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS

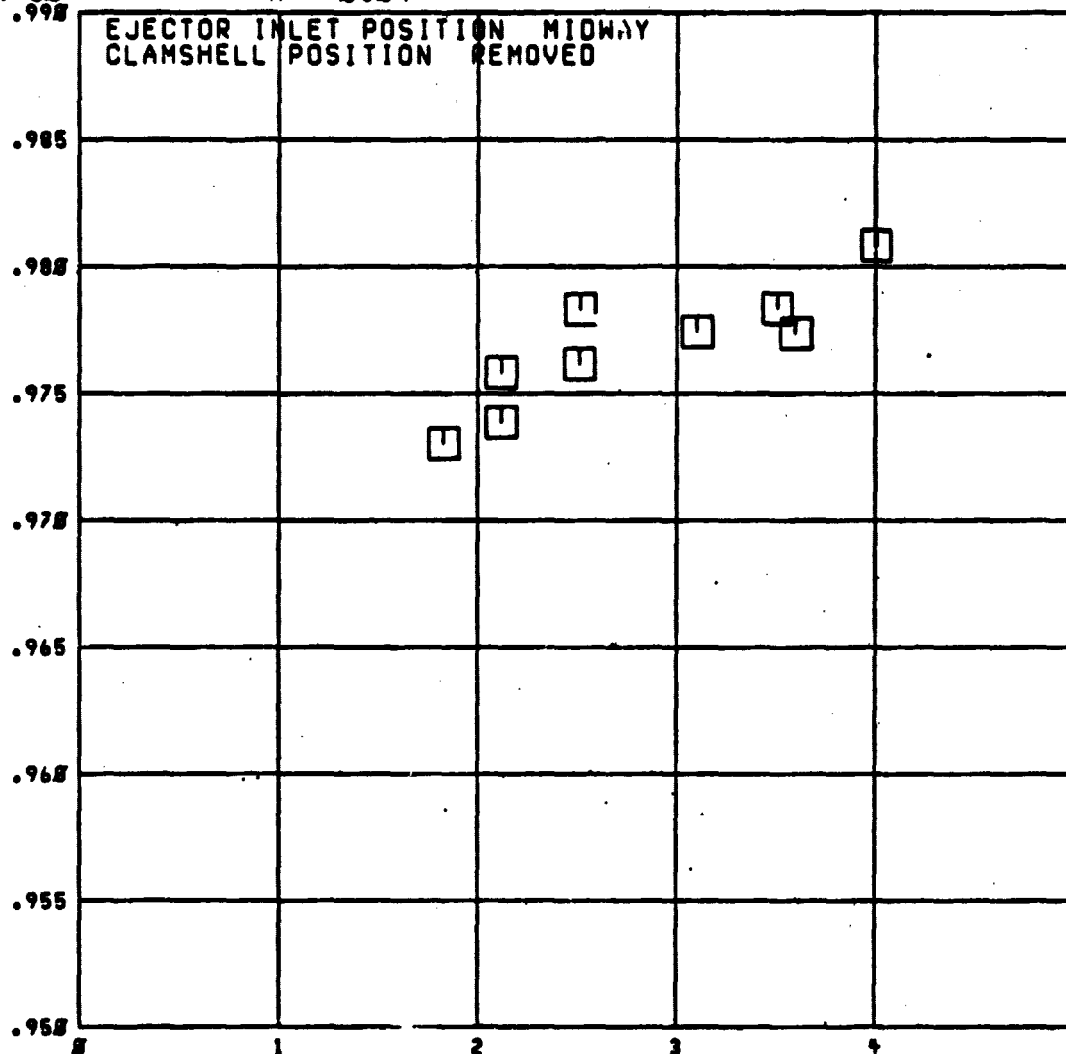
TAKEOFF

$P_{TF}/P_{TD} = 1.46$

RUN 68

$M = 0.84$

FAN-NOZZLE FLOW COEFFICIENT, CDF



FAN NOZZLE PRESSURE RATIO,  $P_{TF}/P_O$

ROC. 2694-2710

C3 200 DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS

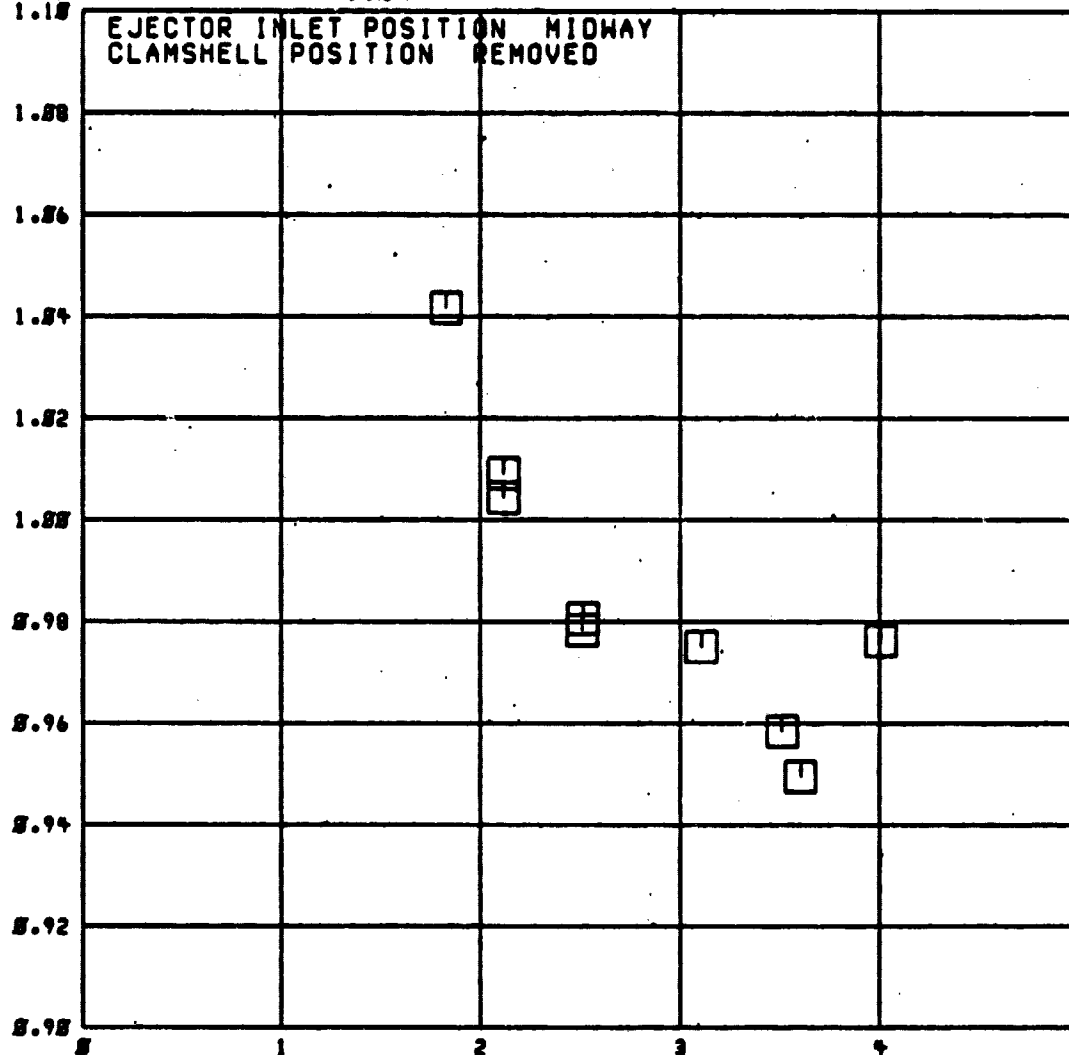
TAKEOFF

$P_{tC}/P_{tD} = \square = 1.46$

RUN 68

$M = 2.84$

PRIMARY-NOZZLE FLOW COEFFICIENT, COP



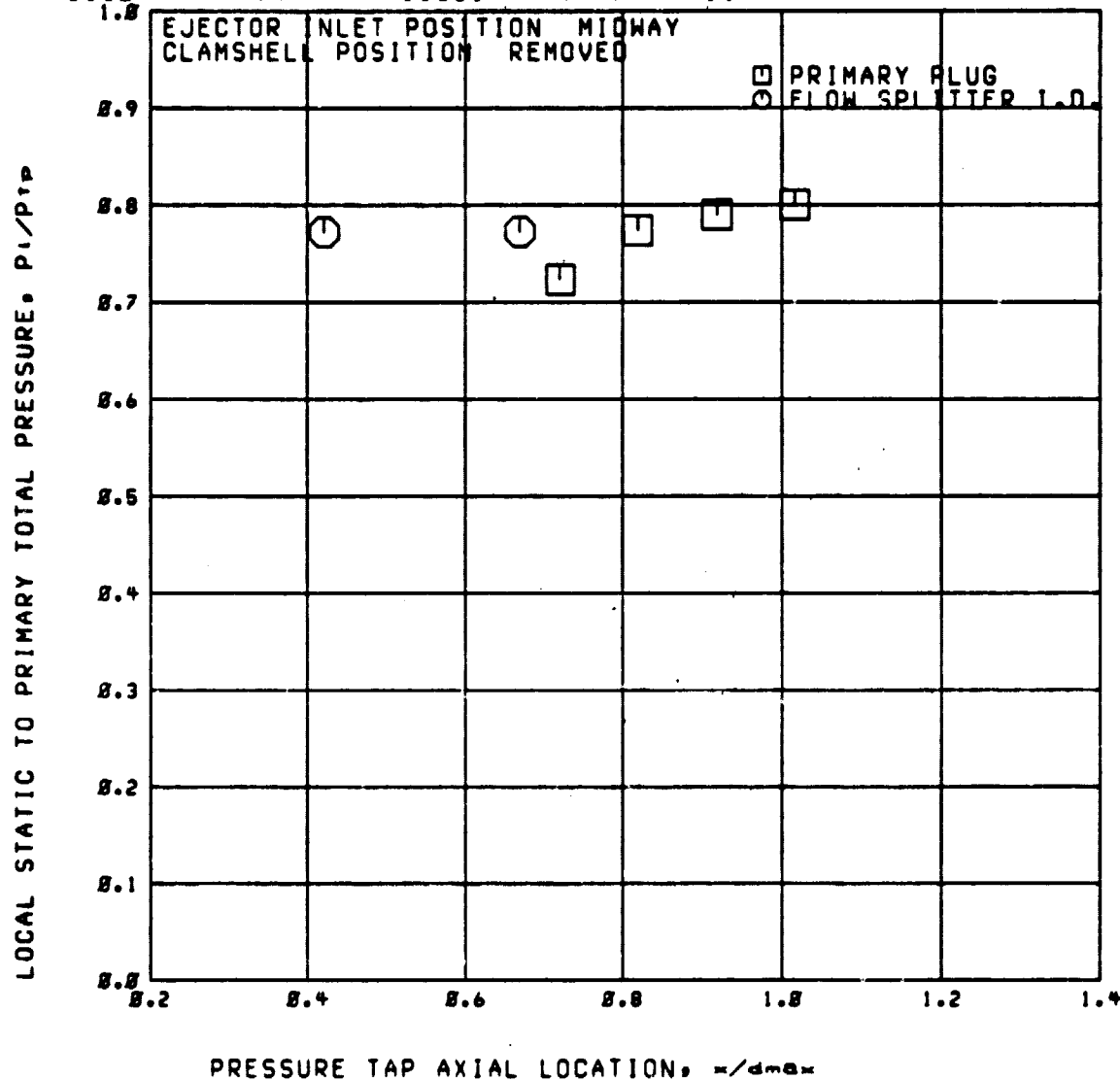
FAN NOZZLE PRESSURE RATIO, PTF/PO

Run 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2694

$M = 0.82$   $P_{ir}/P_o = 1.831$   $P_{ir}/P_{ip} = 1.47$

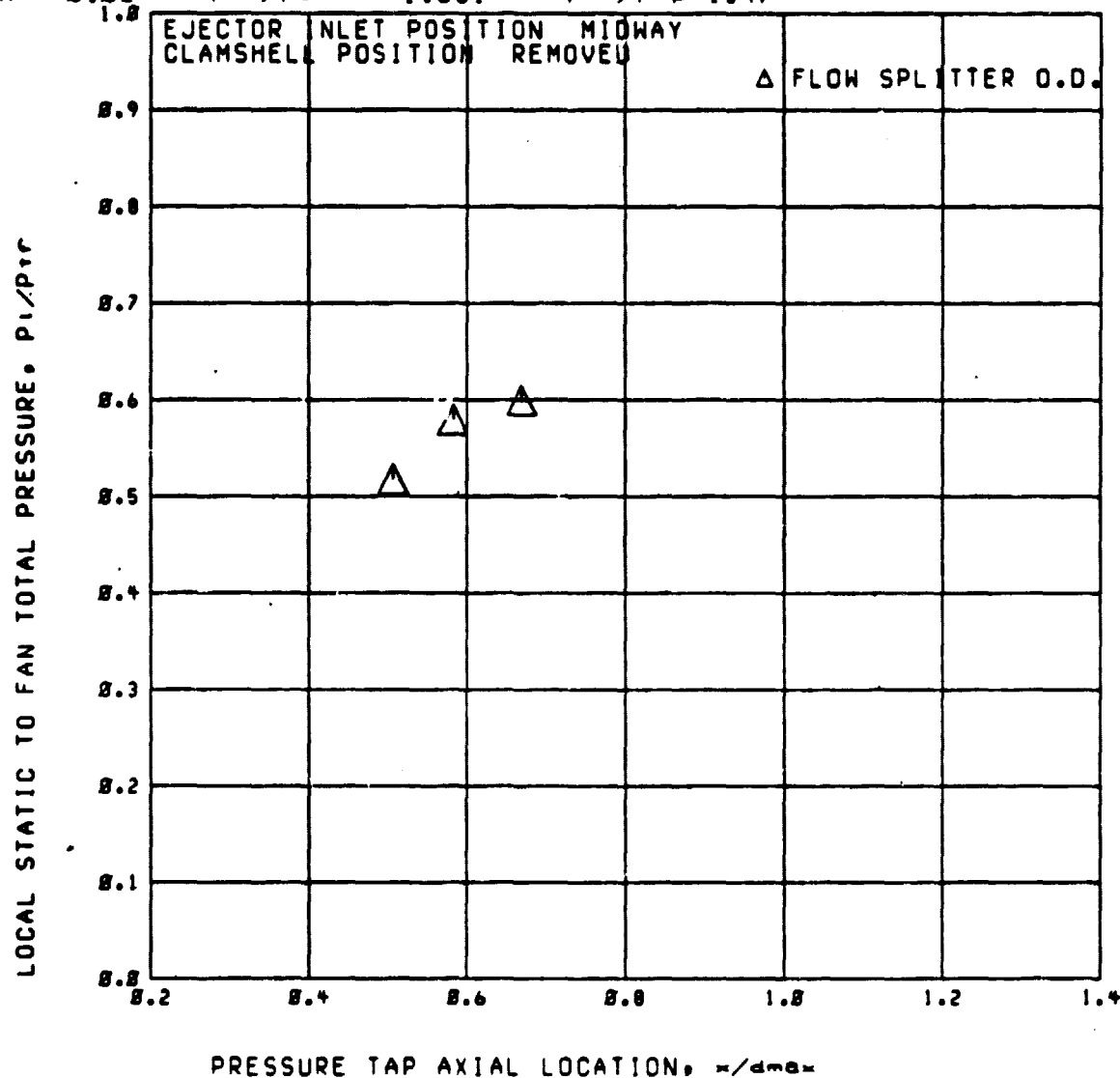




RUN 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS ROD=2694  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.82$   $P_{tr}/P_0 = 1.831$   $P_{tr}/P_{tr} = 1.47$

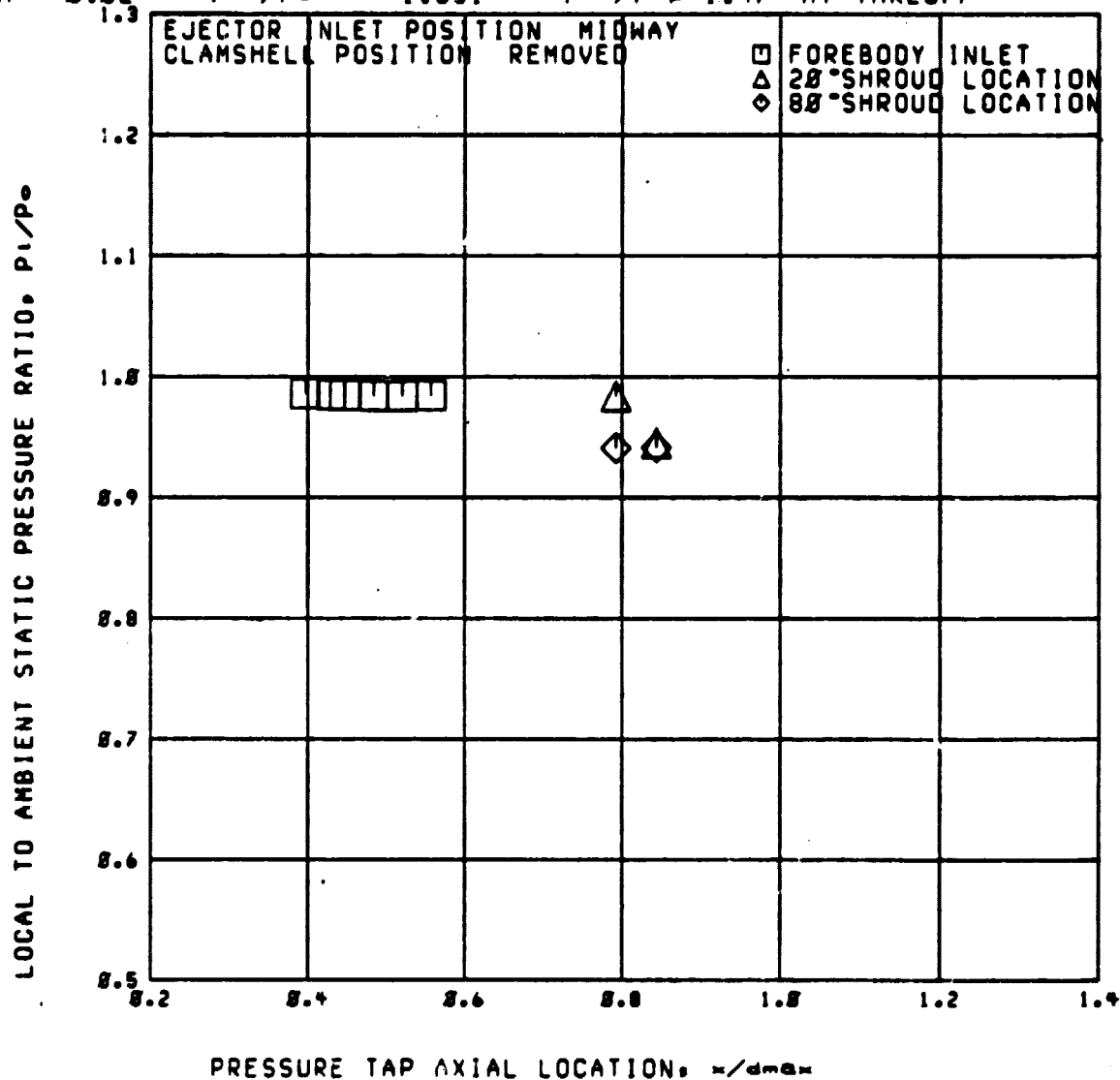


Run 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS  
EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

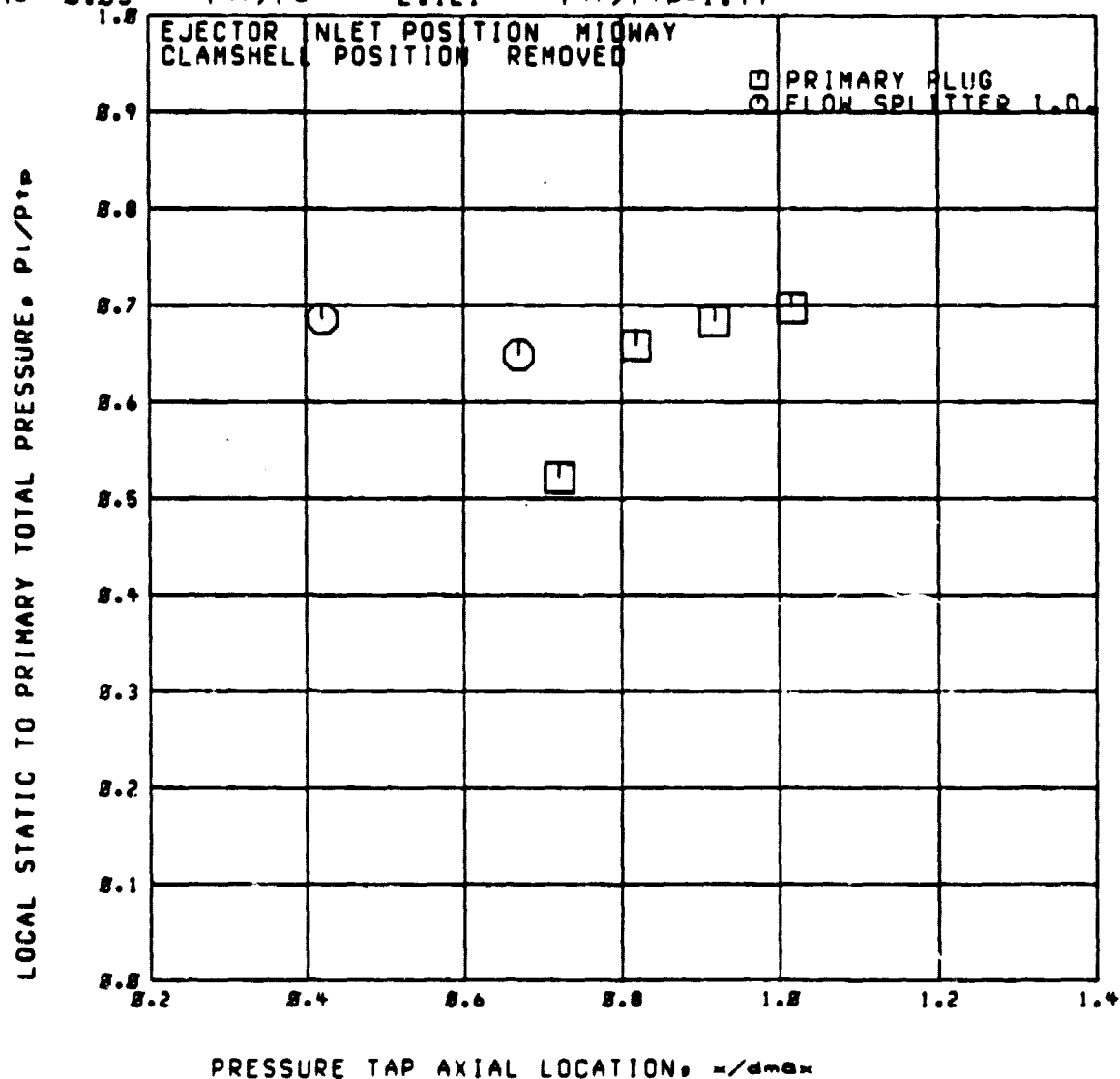
RDG-2694

M = 0.82 P<sub>tc</sub>/P<sub>∞</sub> = 1.831 P<sub>tr</sub>/P<sub>∞</sub> = 1.47 AT TAKEOFF



Run 60

C3 28DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS RDG=2695  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF  
 $M = 8.83$   $P_{t0}/P_{\infty} = 2.121$   $P_{t0}/P_{t\infty} = 1.44$

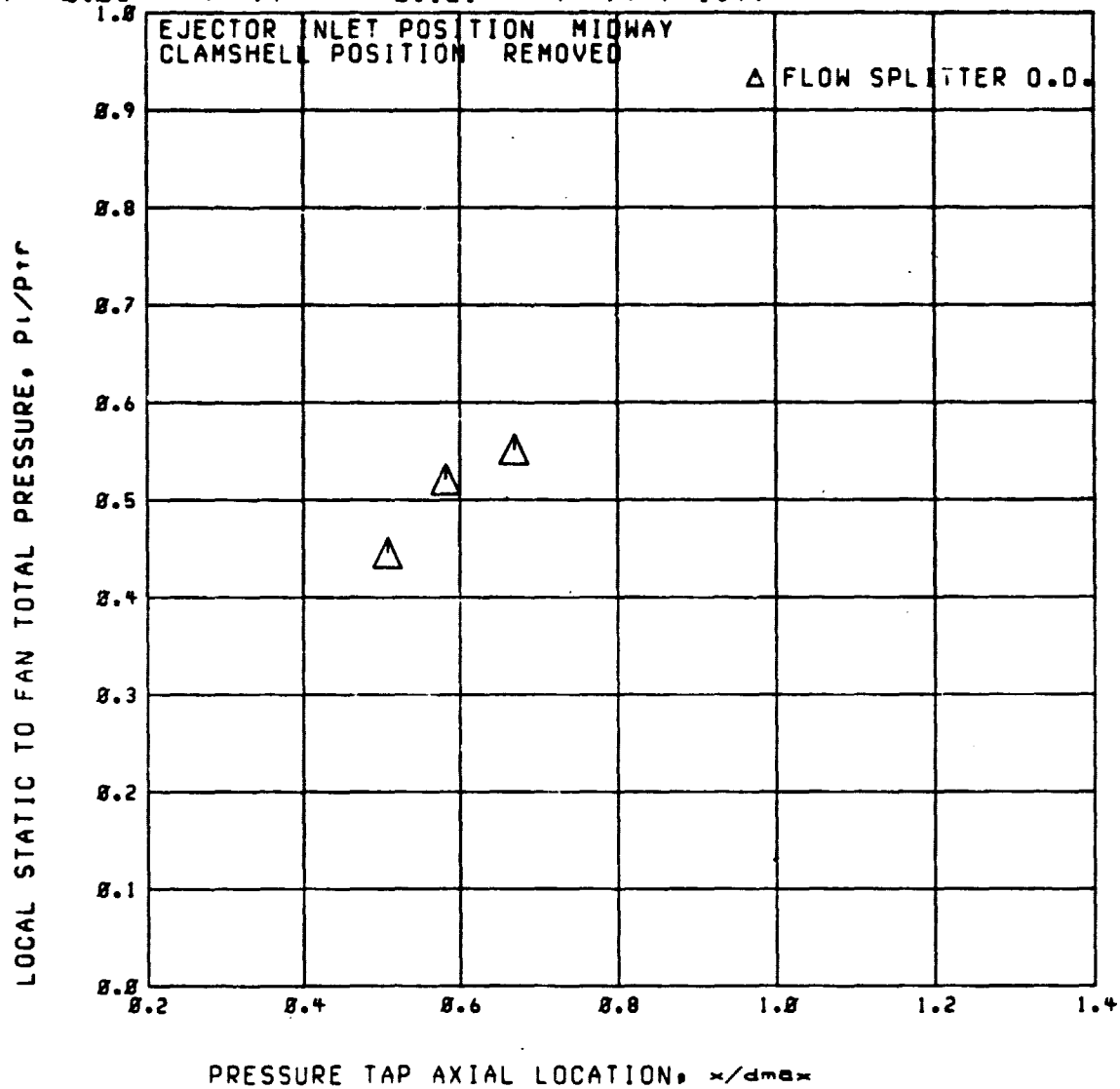


Run 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

ROG=2695

$M_0 = 0.83$   $P_{tr}/P_0 = 2.121$   $P_{tr}/P_{tr} = 1.44$

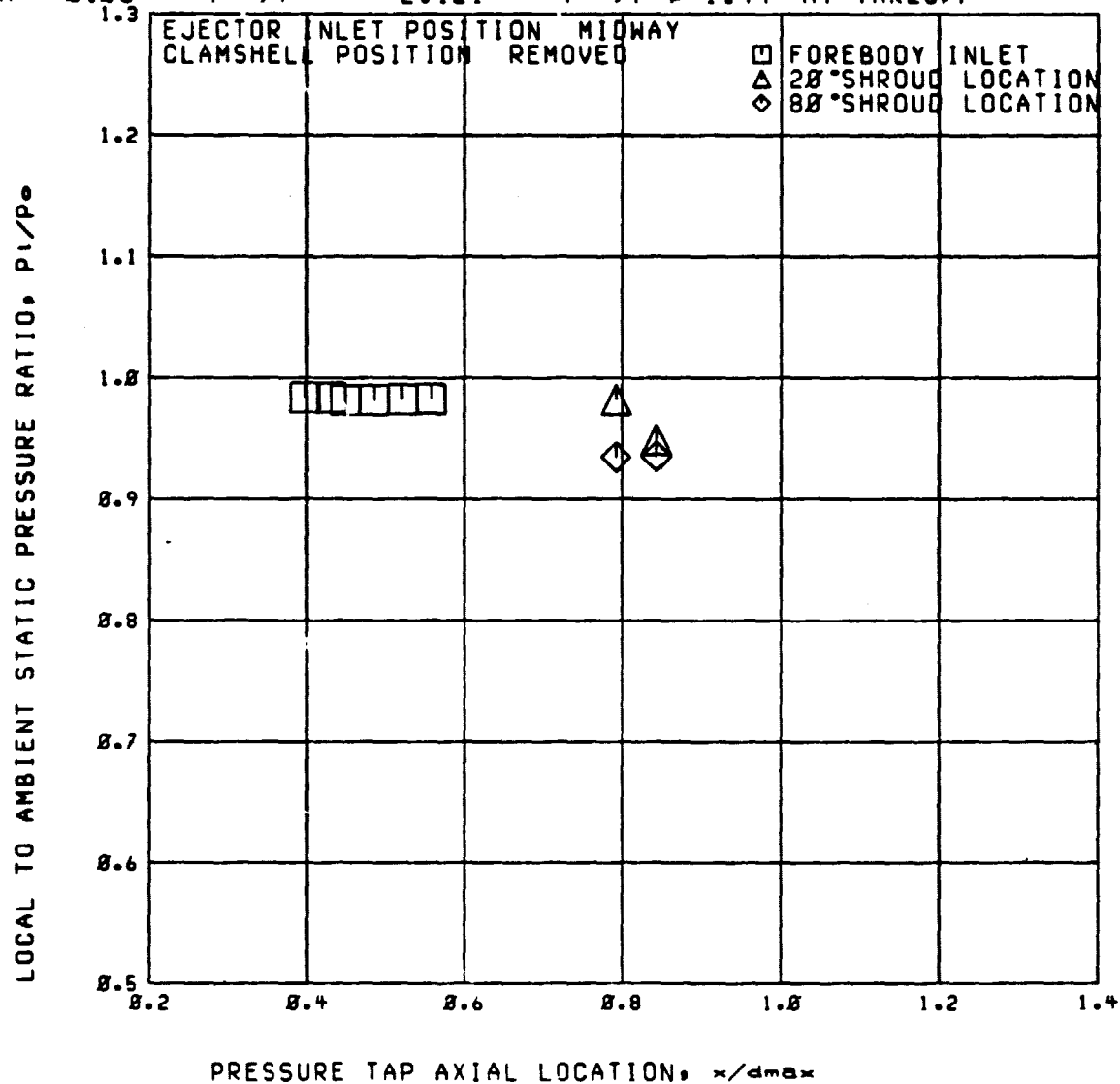


Run 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

RDG=2695

$M_0 = 0.83$   $P_{tr}/P_0 = 2.121$   $P_{tr}/P_{tr} = 1.44$  AT TAKEOFF

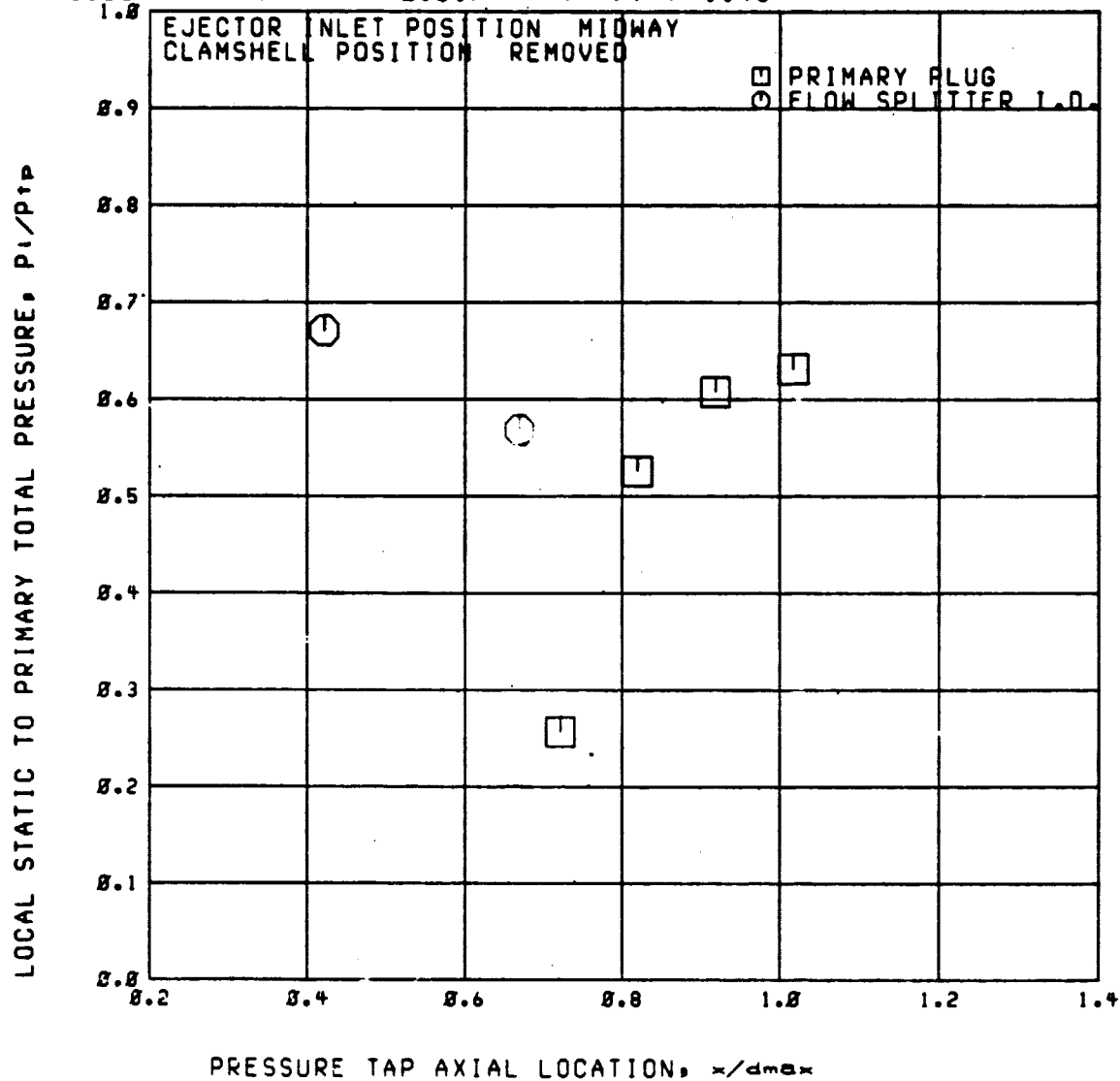


Run 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2696

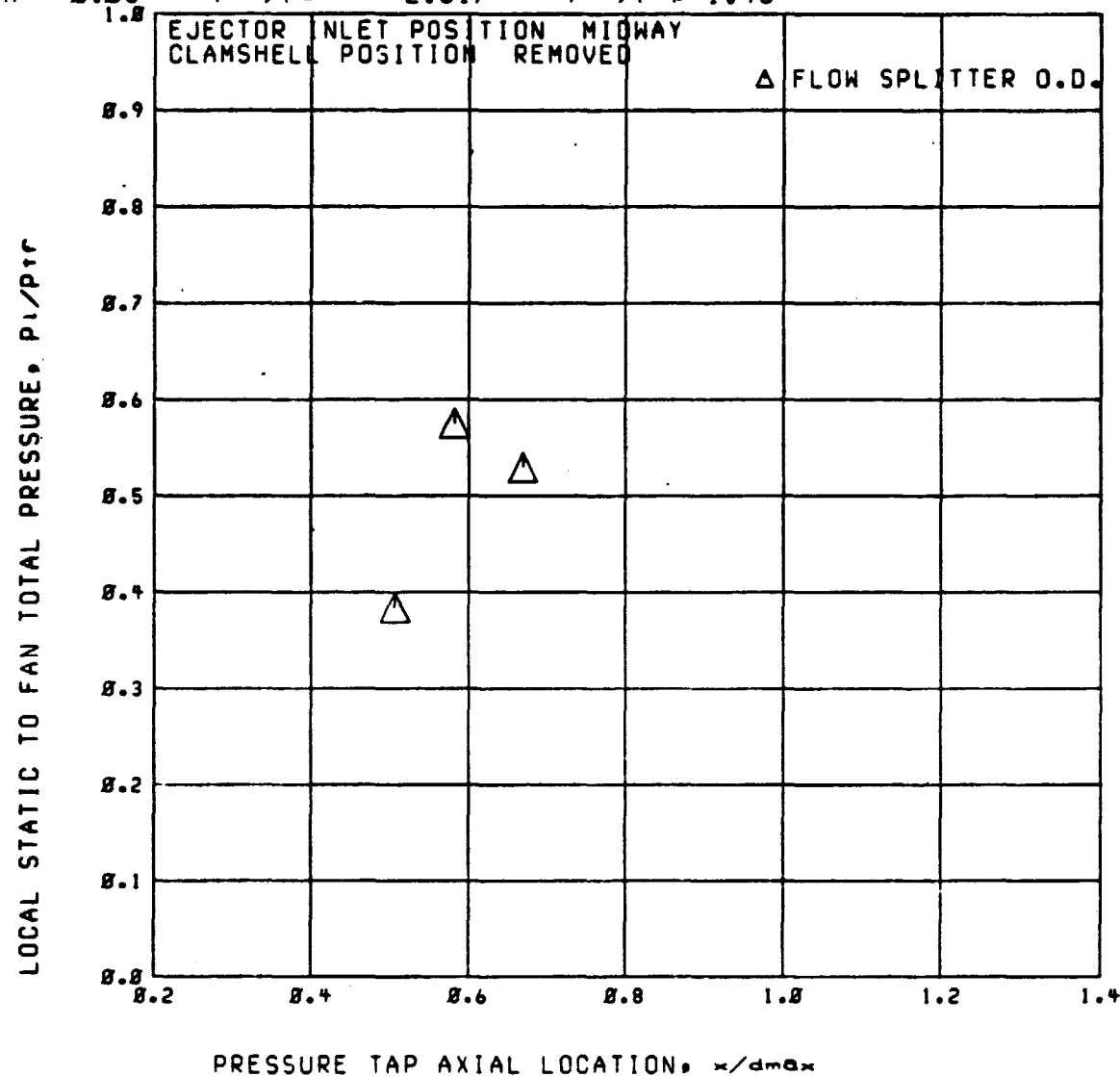
$M_0 = 0.83$   $P_{tr}/P_{e0} = 2.517$   $P_{tr}/P_{tp} = 1.46$



Run 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS RDG=2696  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

Mo = 0.03 P<sub>tr</sub>/P<sub>os</sub> = 2.517 P<sub>tr</sub>/P<sub>tp</sub> = 1.46

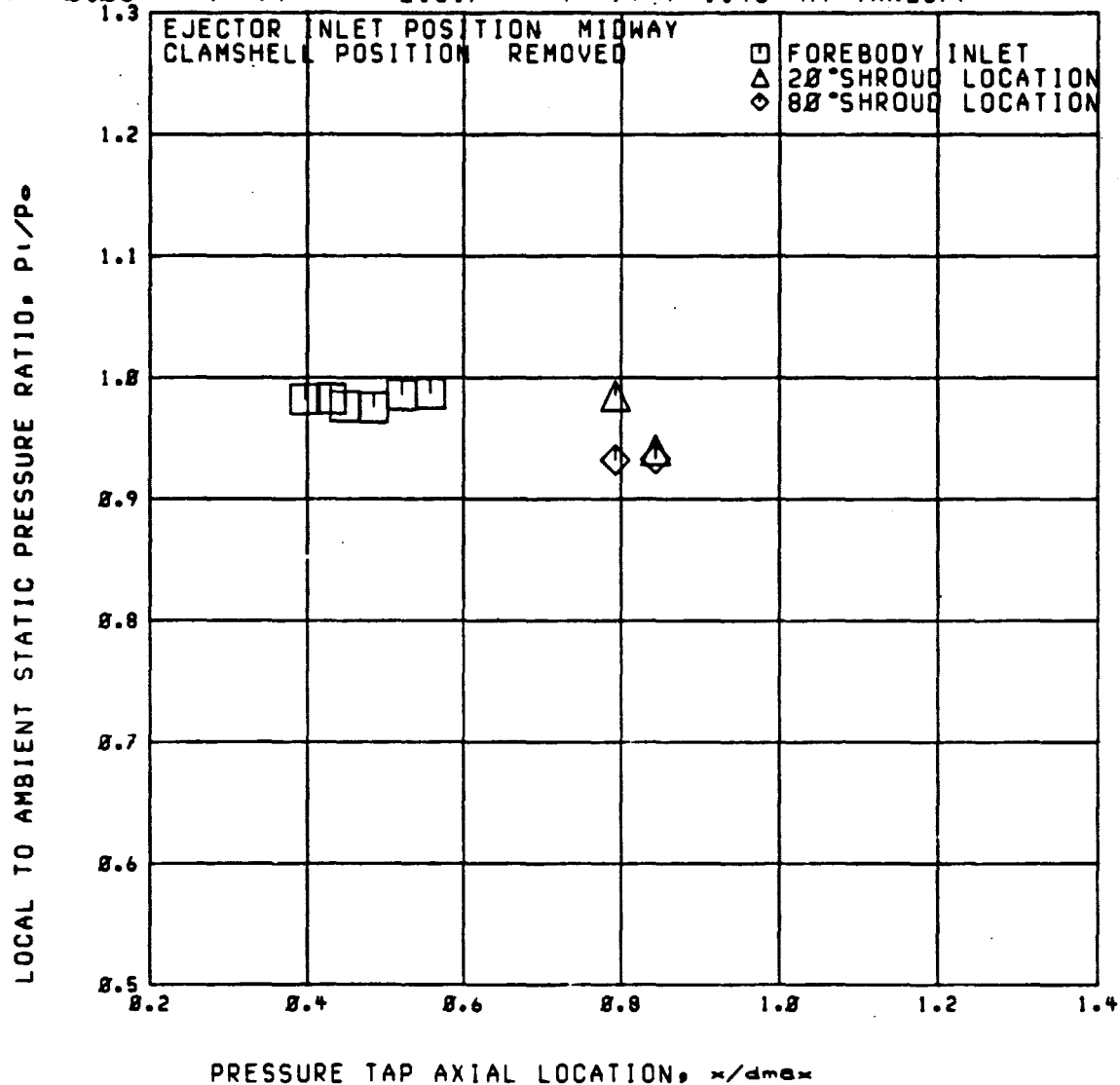


RUN 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS  
EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

RDG=2696

$M_0 = 0.83$   $P_{tr}/P_0 = 2.517$   $P_{tr}/P_{tr0} = 1.46$  AT TAKEOFF



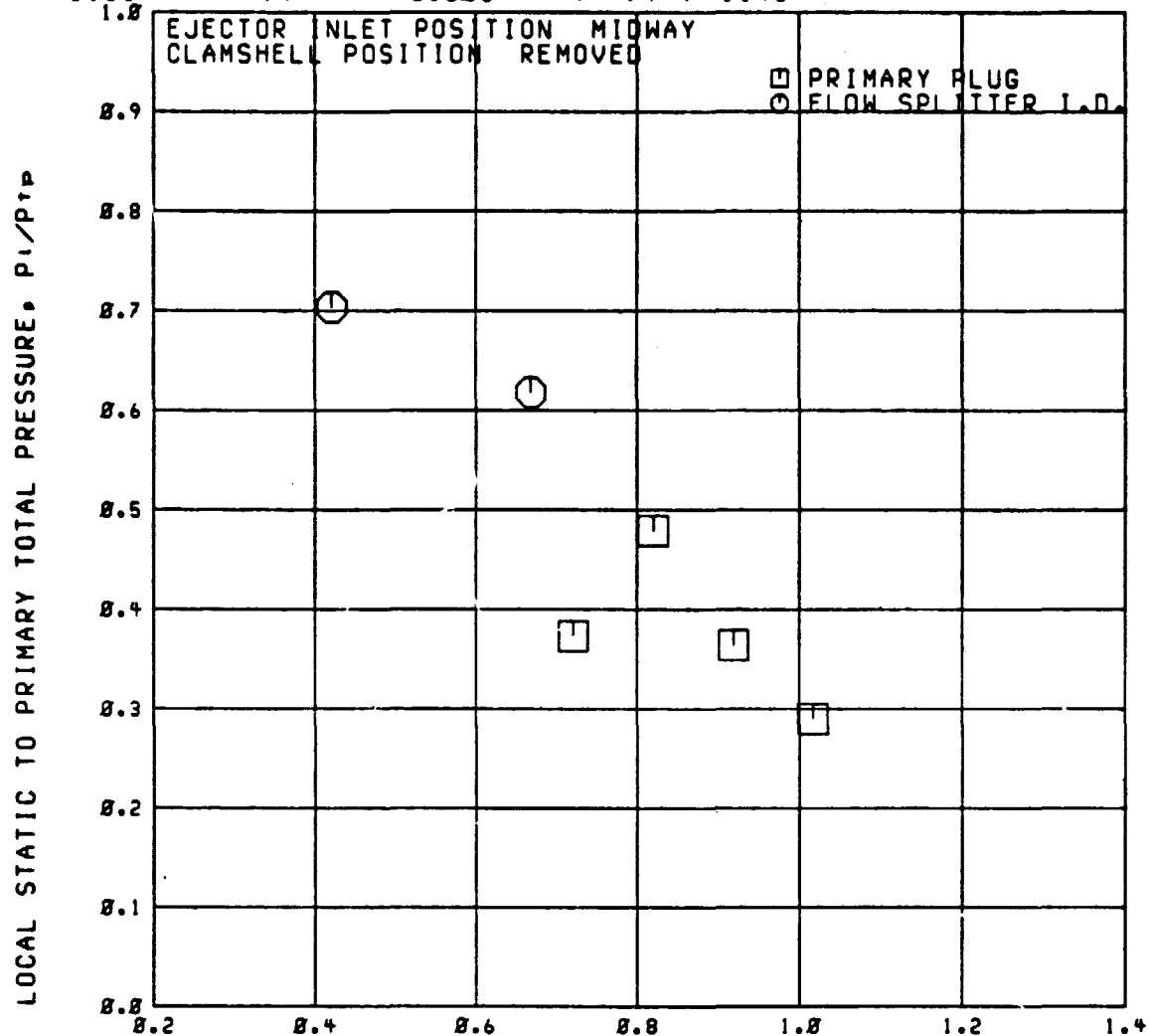


Run 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2703

$M_0 = 0.85$   $P_{tr}/P_0 = 3.605$   $P_{tr}/P_{tp} = 1.46$

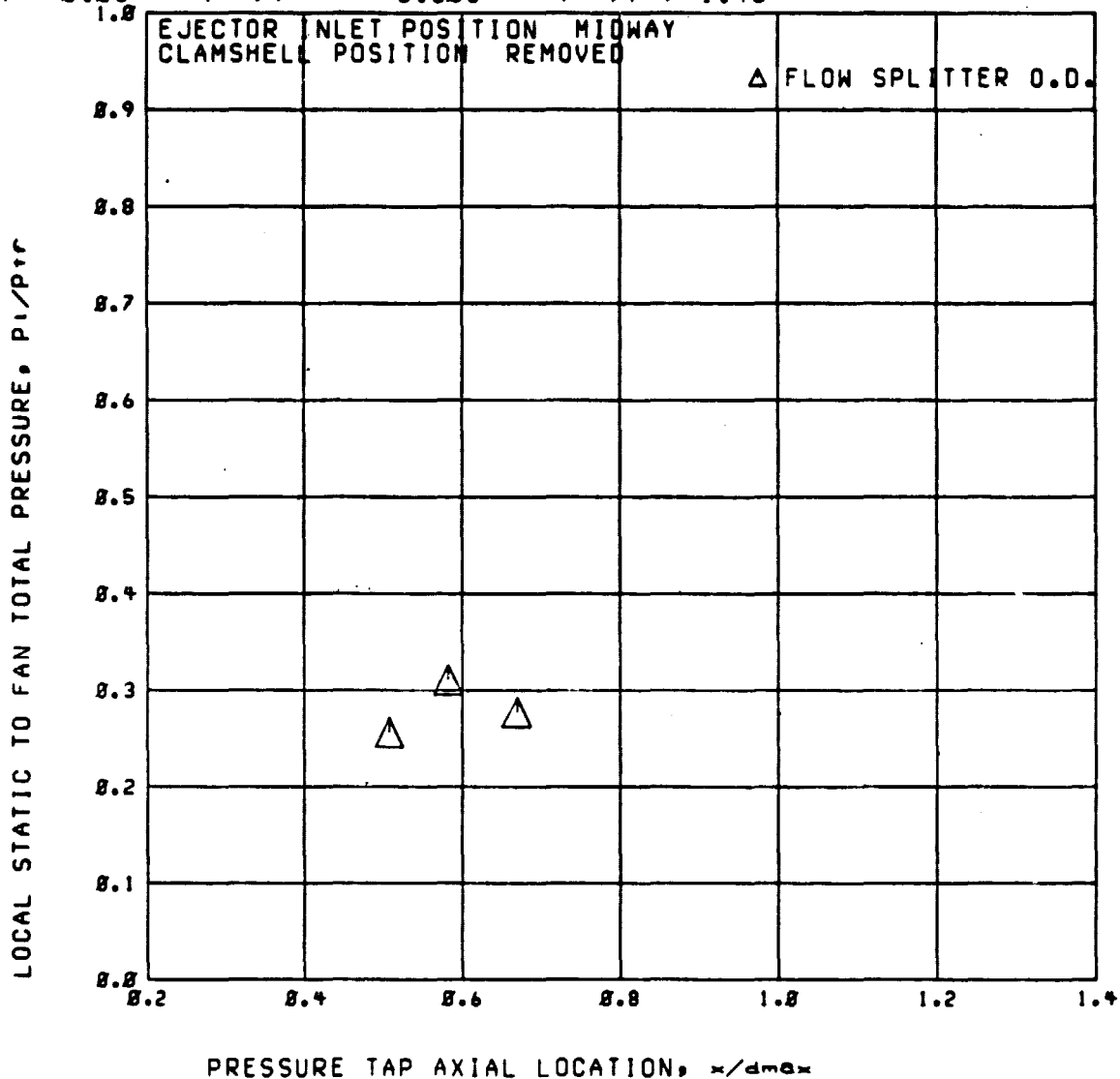


PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

Run 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS RDG=2783  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.85$   $P_{tr}/P_o = 3.685$   $P_{tr}/P_{tp} = 1.46$



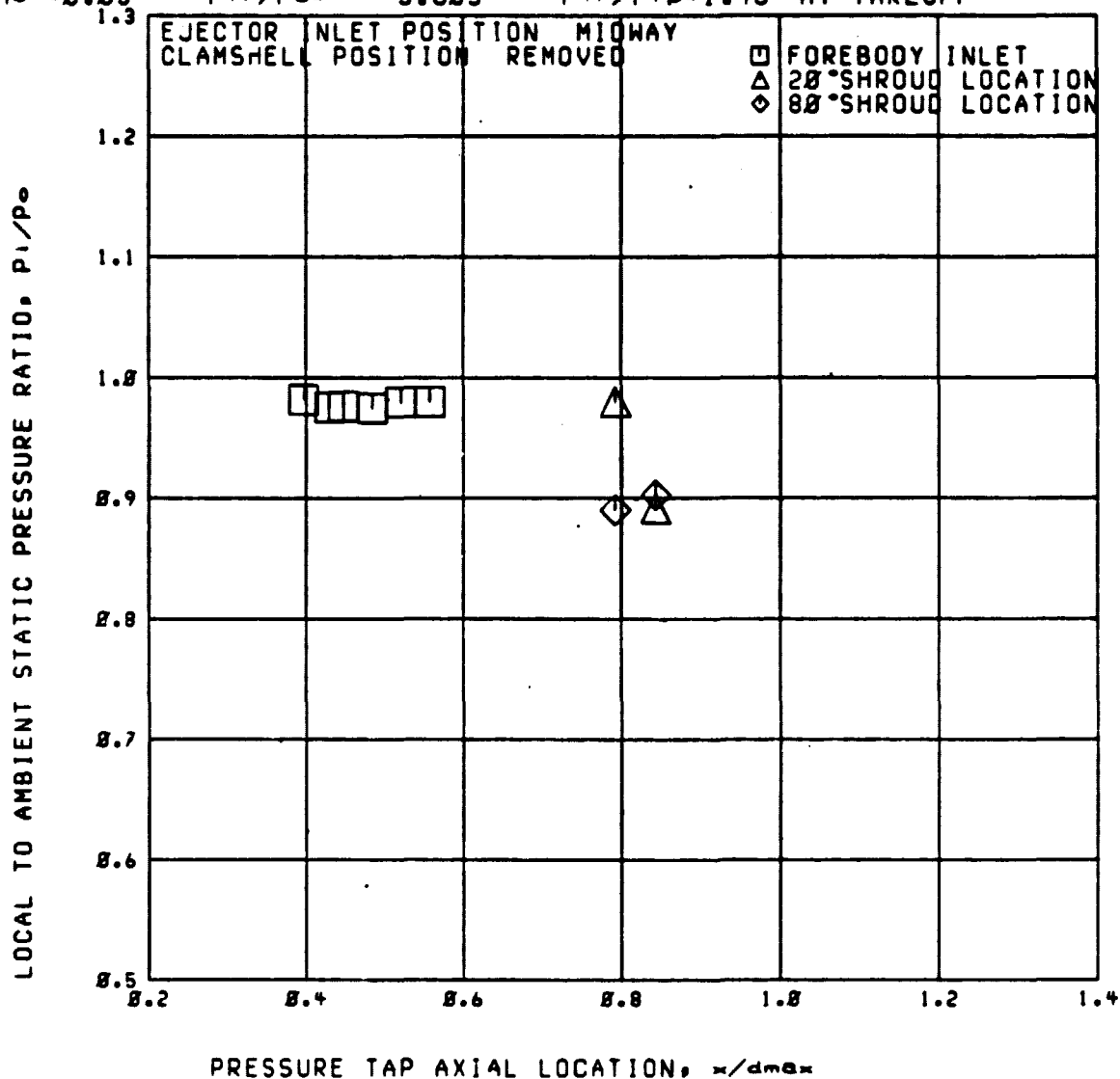
RUN 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS

RDG=2783

EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

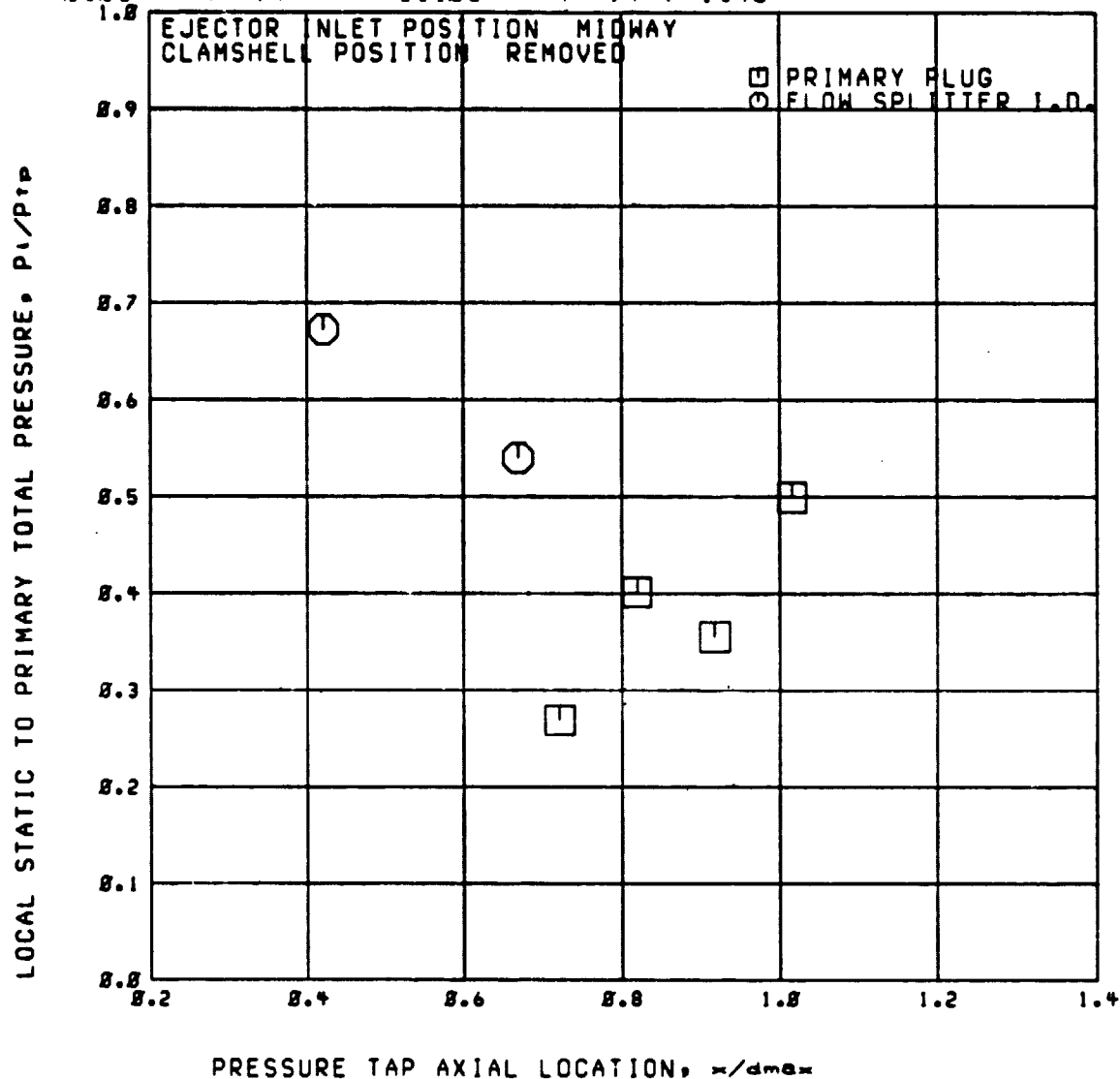
$M_0 = 8.85$   $P_{tr}/P_0 = 3.685$   $P_{tr}/P_{tr} = 1.46$  AT TAKEOFF



RUN 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS RDG=2784  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

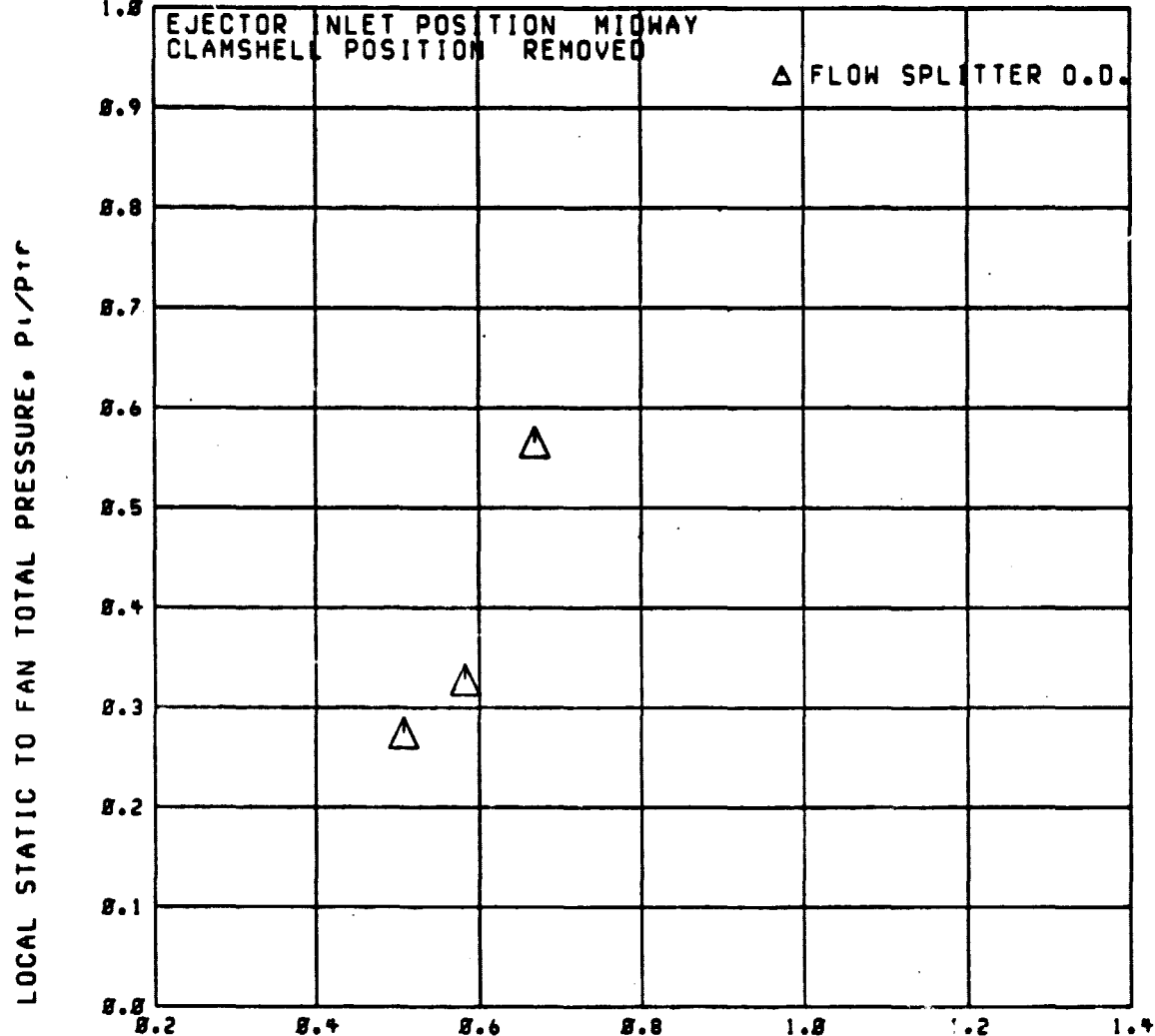
M=0.85  $P_{t0}/P_{\infty}=3.188$   $P_{t0}/P_{tP}=1.48$



Run 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS RDG=2784  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$   $P_{tr}/P_{0e} = 3.108$   $P_{tr}/P_{tr} = 1.48$



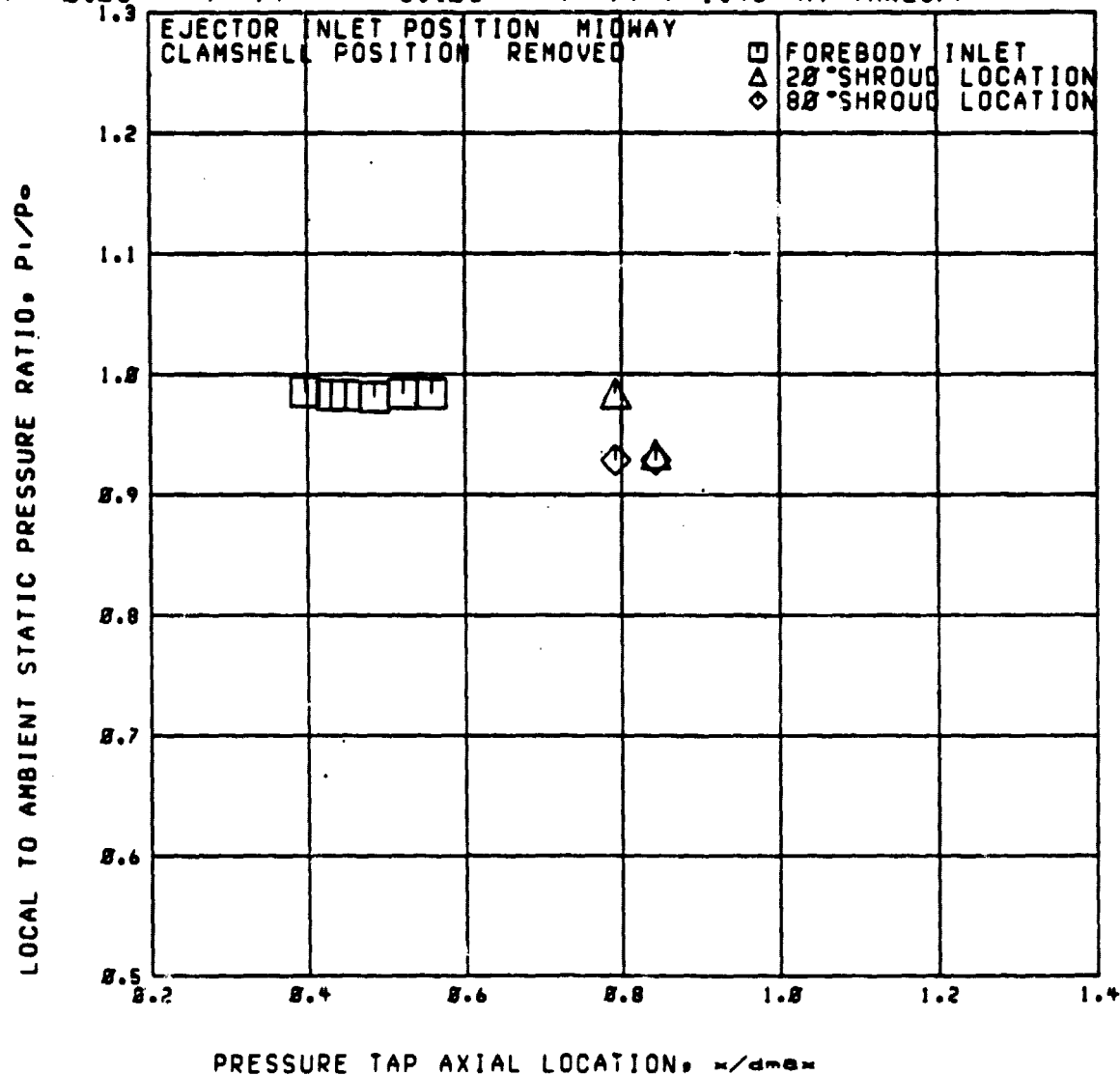
PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

Run 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

RDG-2784

$M_0 = 0.85$   $P_{t0}/P_0 = 3.108$   $P_{t0}/P_{t0} = 1.48$  AT TAKEOFF

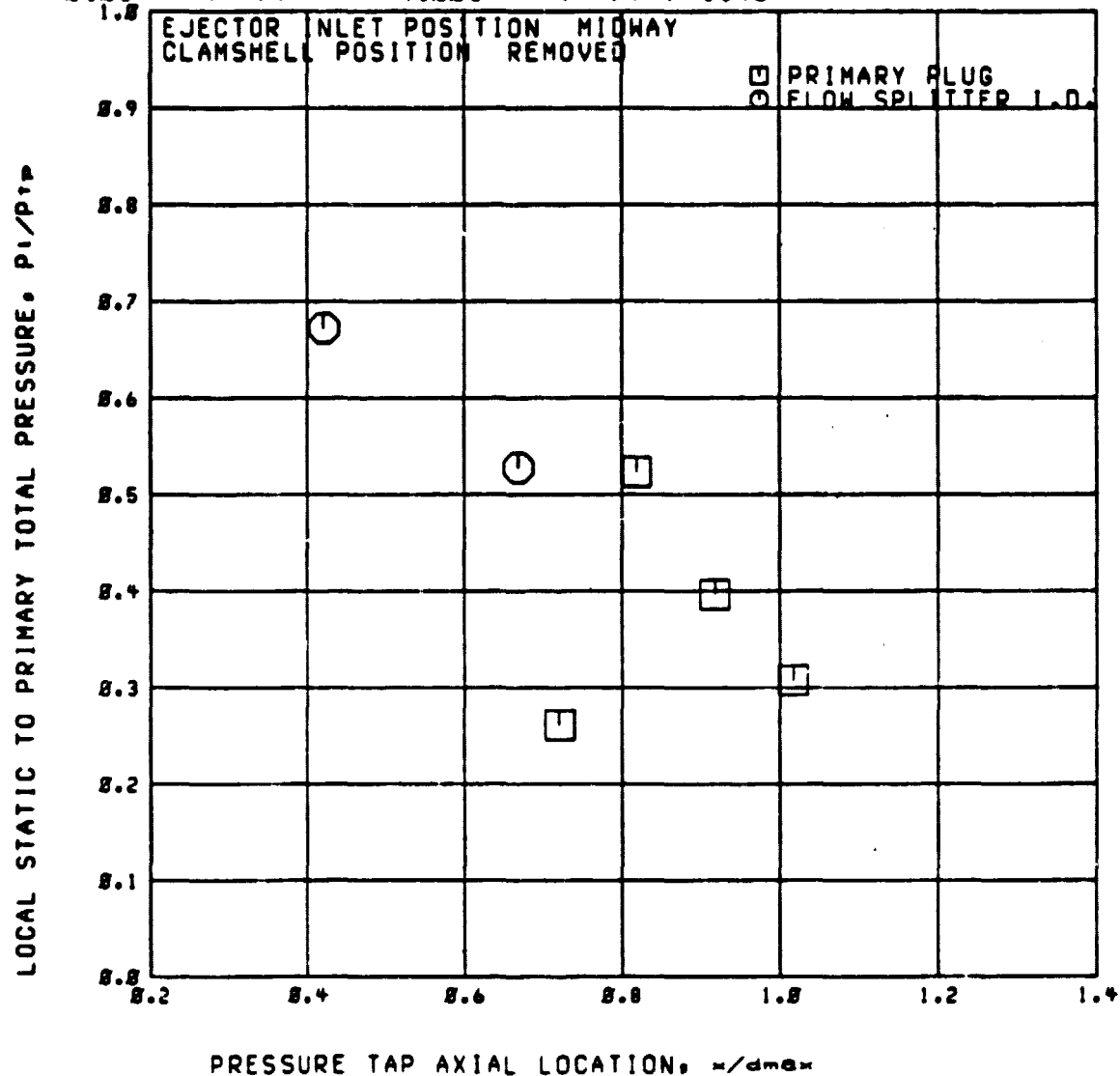


RUN 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2718

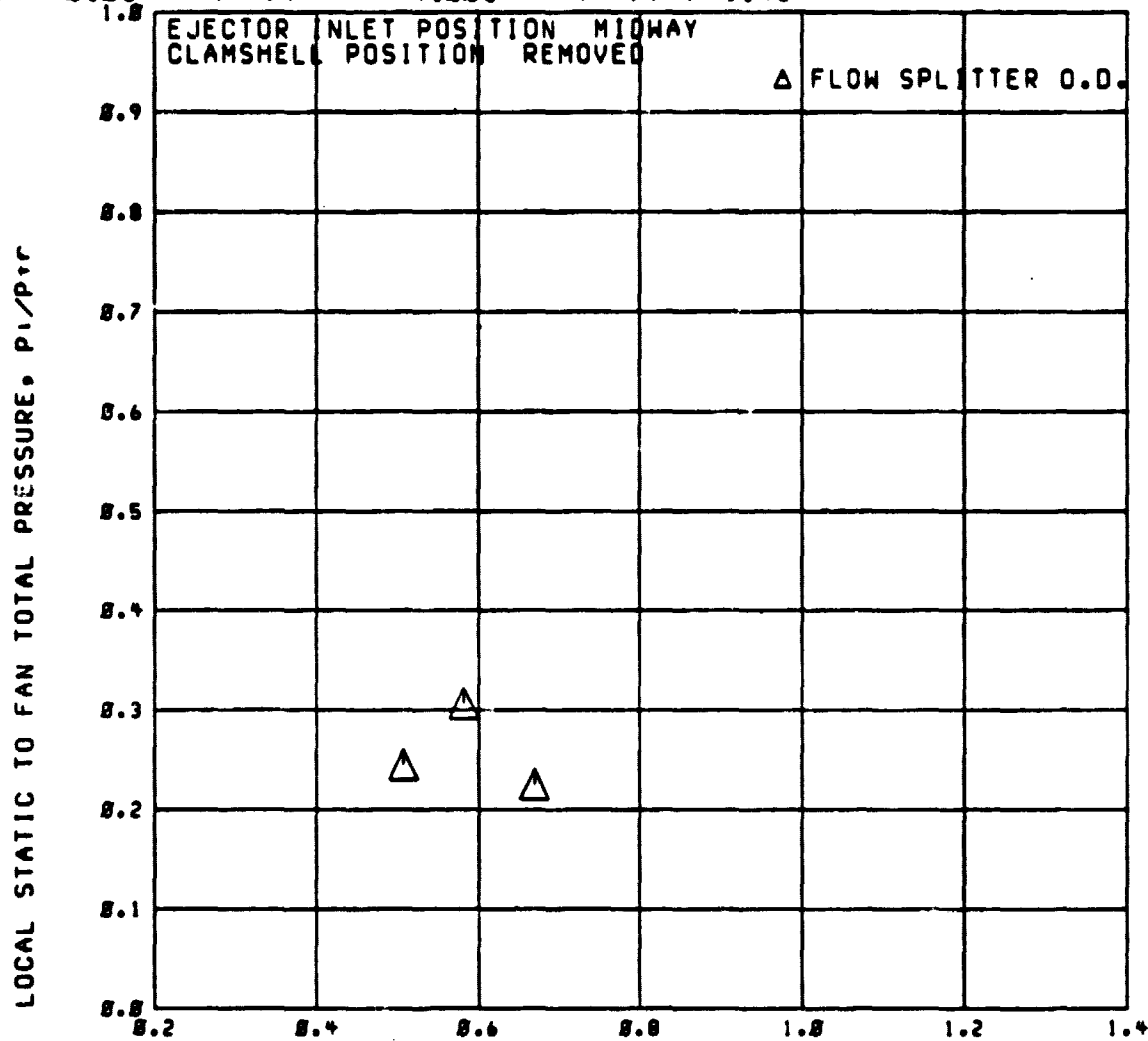
$M = 2.85$   $P_{tr}/P_{\infty} = 4.888$   $P_{tr}/P_{tp} = 1.46$



Run 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS RDG=2710  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

Ma = 0.85 P<sub>ir</sub>/P<sub>0</sub> = 4.886 P<sub>ir</sub>/P<sub>tr</sub> = 1.46



PRESSURE TAP AXIAL LOCATION,  $x/dms$



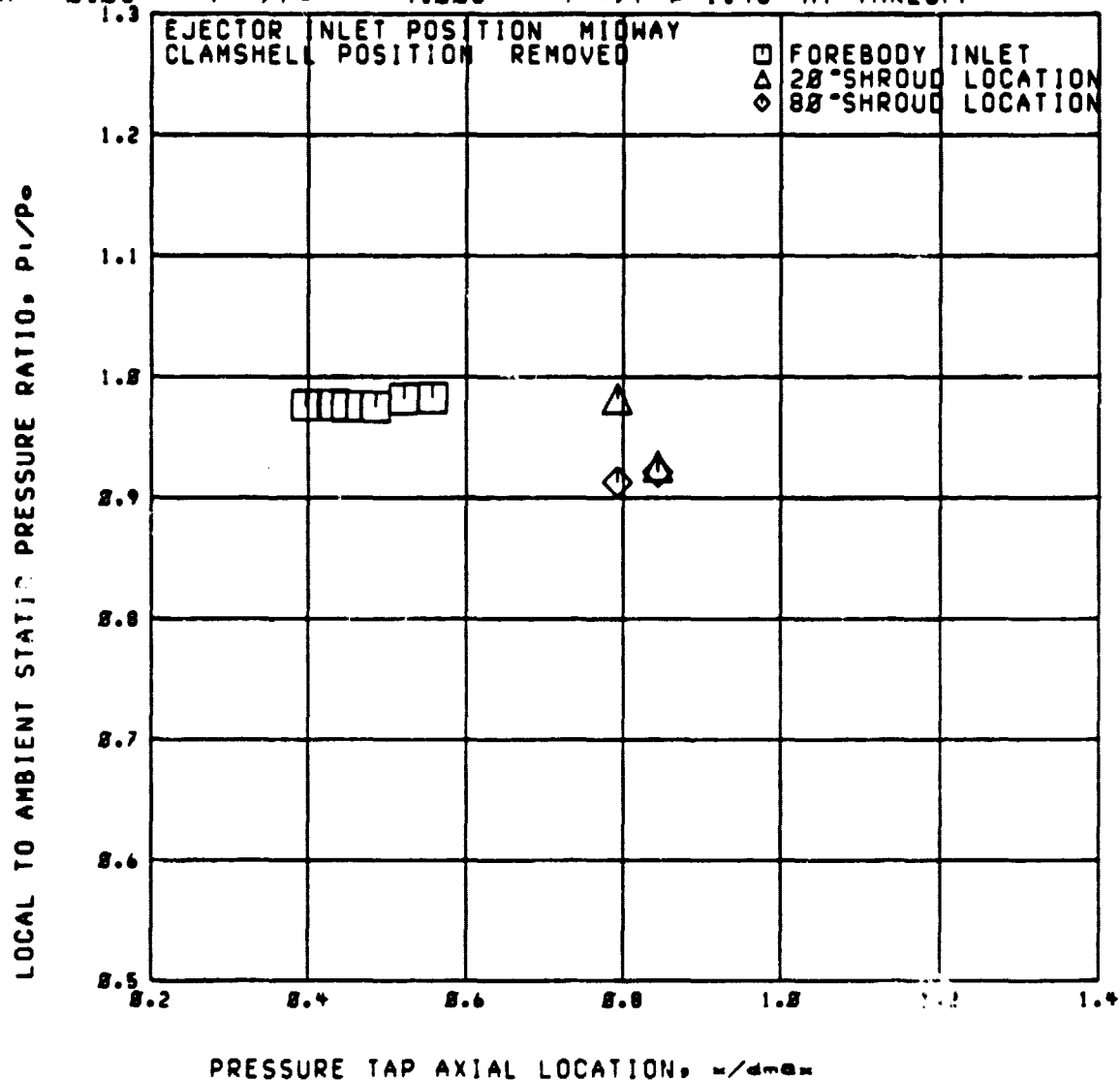
Run 60

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS

RDG-2718

EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.85$   $P_{t0}/P_0 = 4.008$   $P_{t0}/P_{t0} = 1.46$  AT TAKEOFF



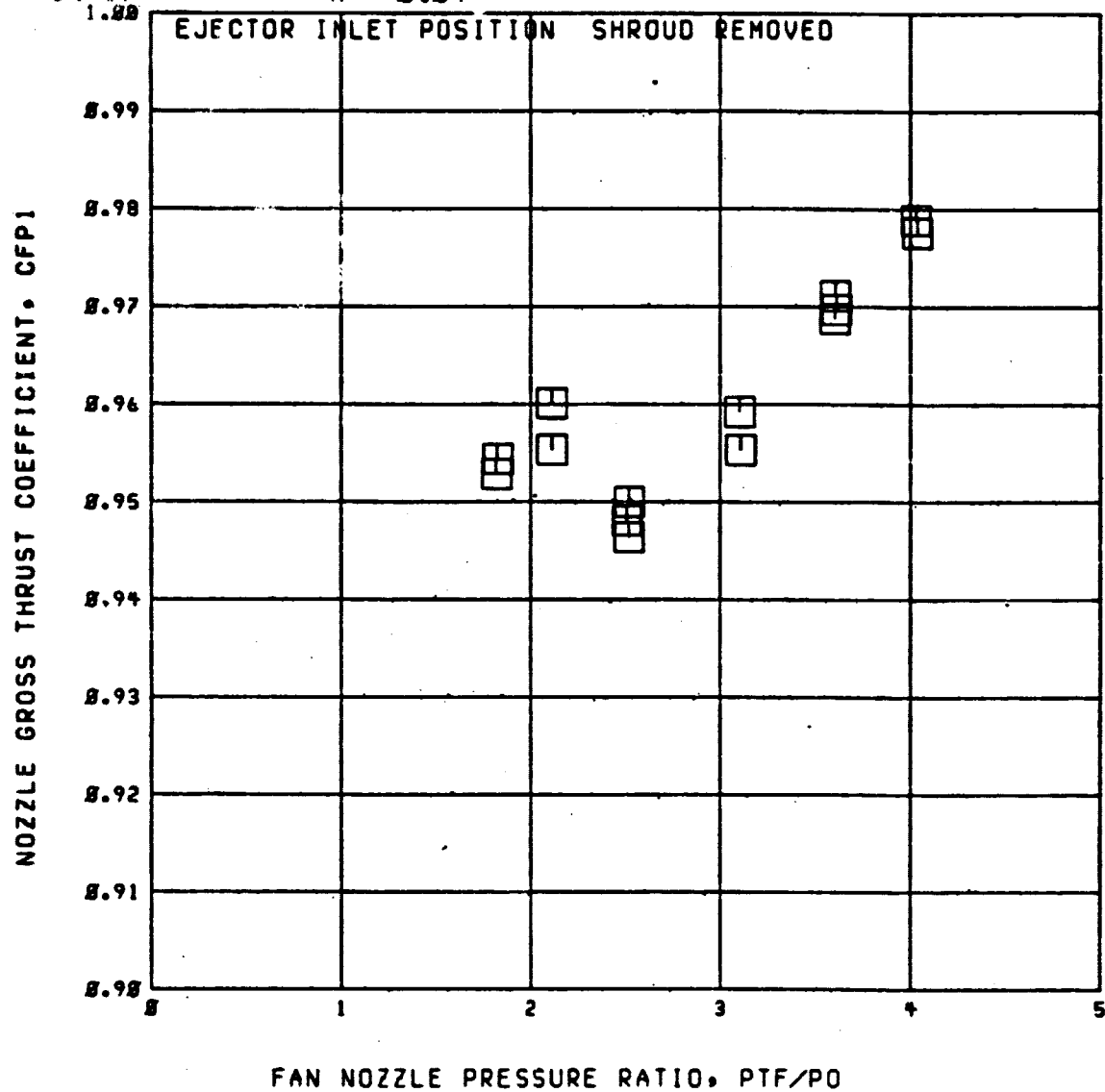
RD'6. 2711-2727

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS  
TAKEOFF

$P_{tF}/P_{tP} = \square = 1.46$

RUN 61

$M = 0.84$



ROG 2711-2727

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS

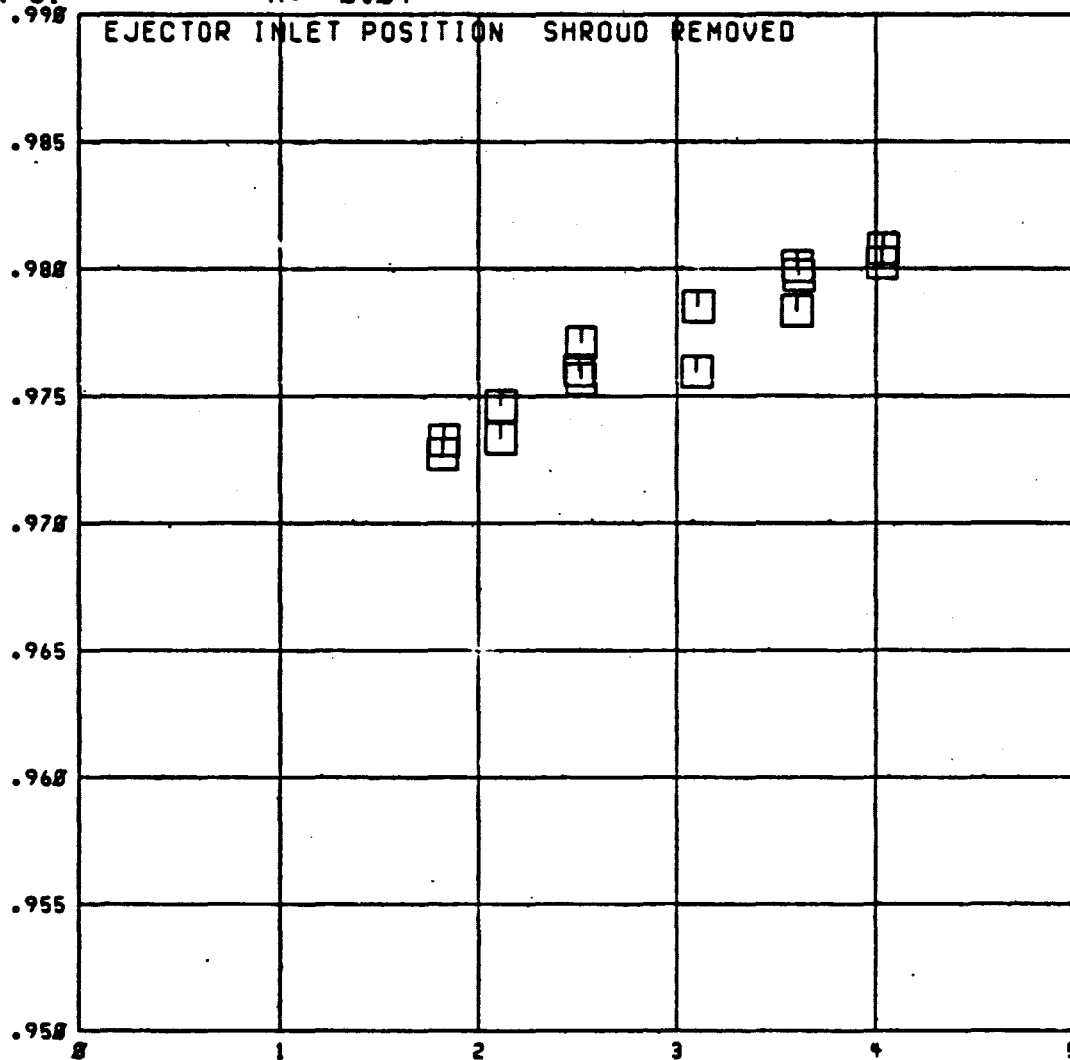
TAKEOFF

$P_{tr}/P_{tp} = \square = 1.46$

RUN 61

$M_0 = 0.84$

FAN-NOZZLE FLOW COEFFICIENT, COF



FAN NOZZLE PRESSURE RATIO, PTF/PO

ROG. 2711-2727

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS

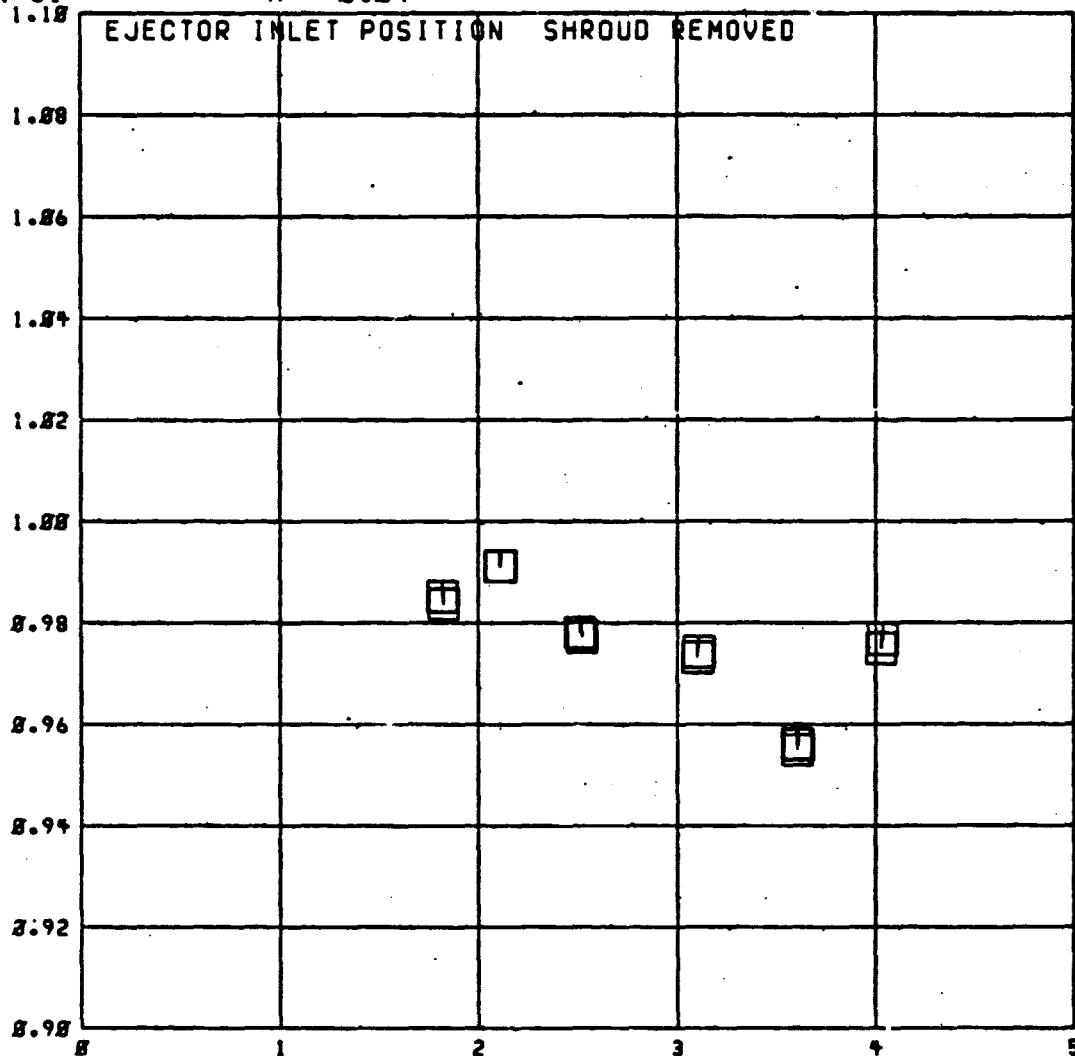
TAKEOFF

$P_{TF}/P_{TP} = \square = 1.46$

RUN 61

$M_0 = 0.84$

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP



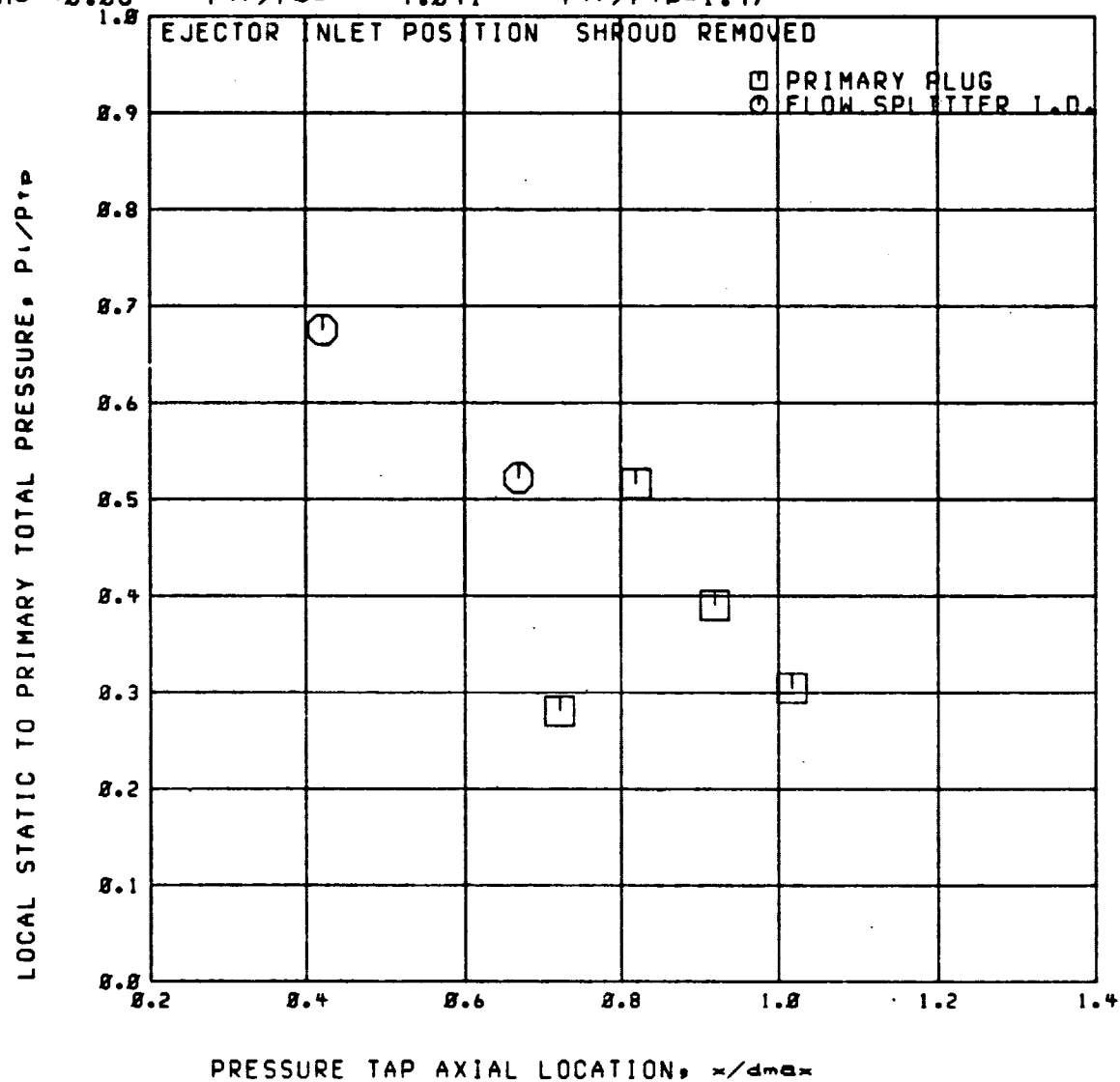
FAN NOZZLE PRESSURE RATIO,  $P_{TF}/P_O$

Run 61

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

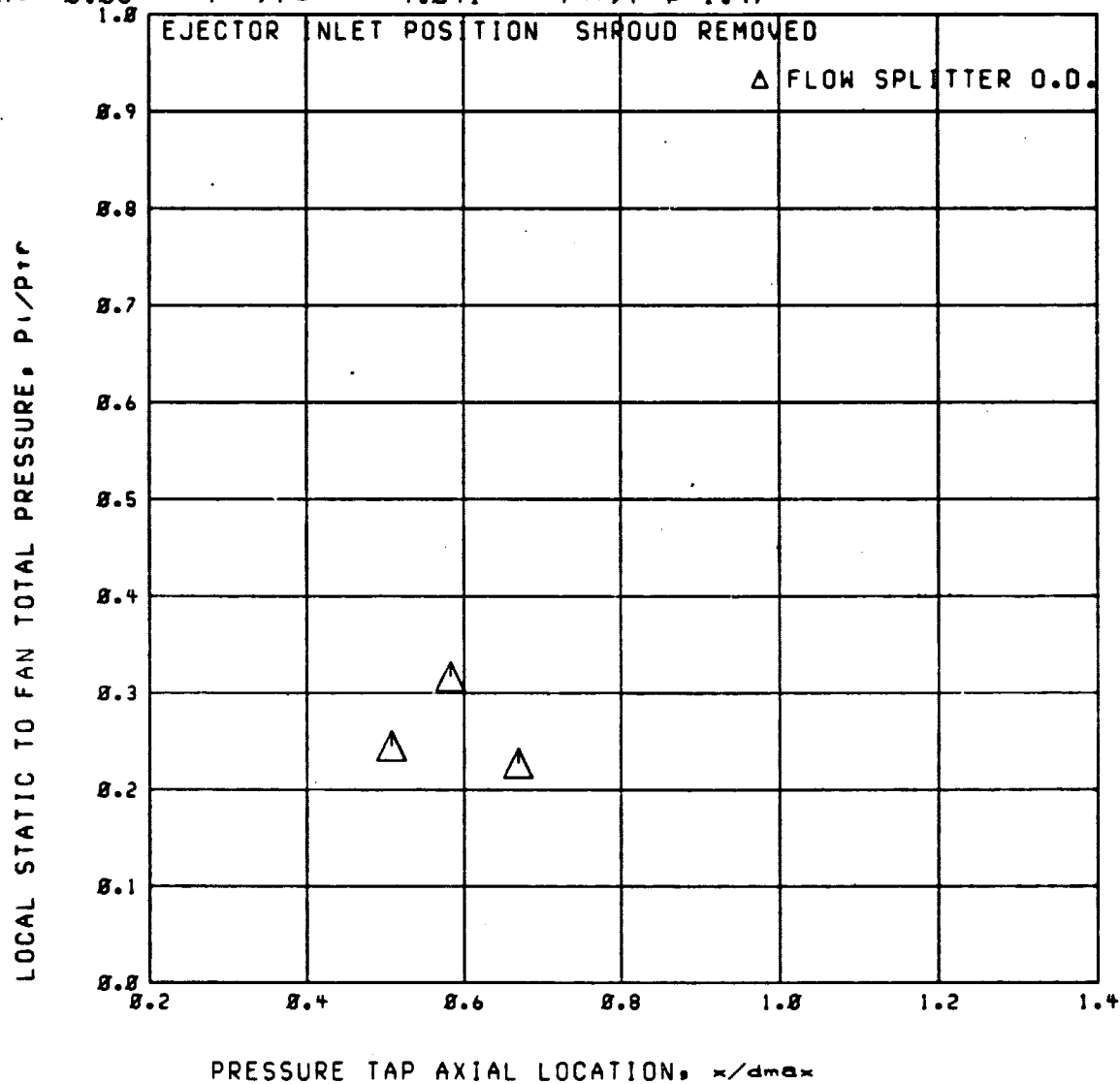
ROG=2717

$M_0 = 0.86$   $P_{tr}/P_0 = 4.841$   $P_{tr}/P_{tp} = 1.47$



RUN 61

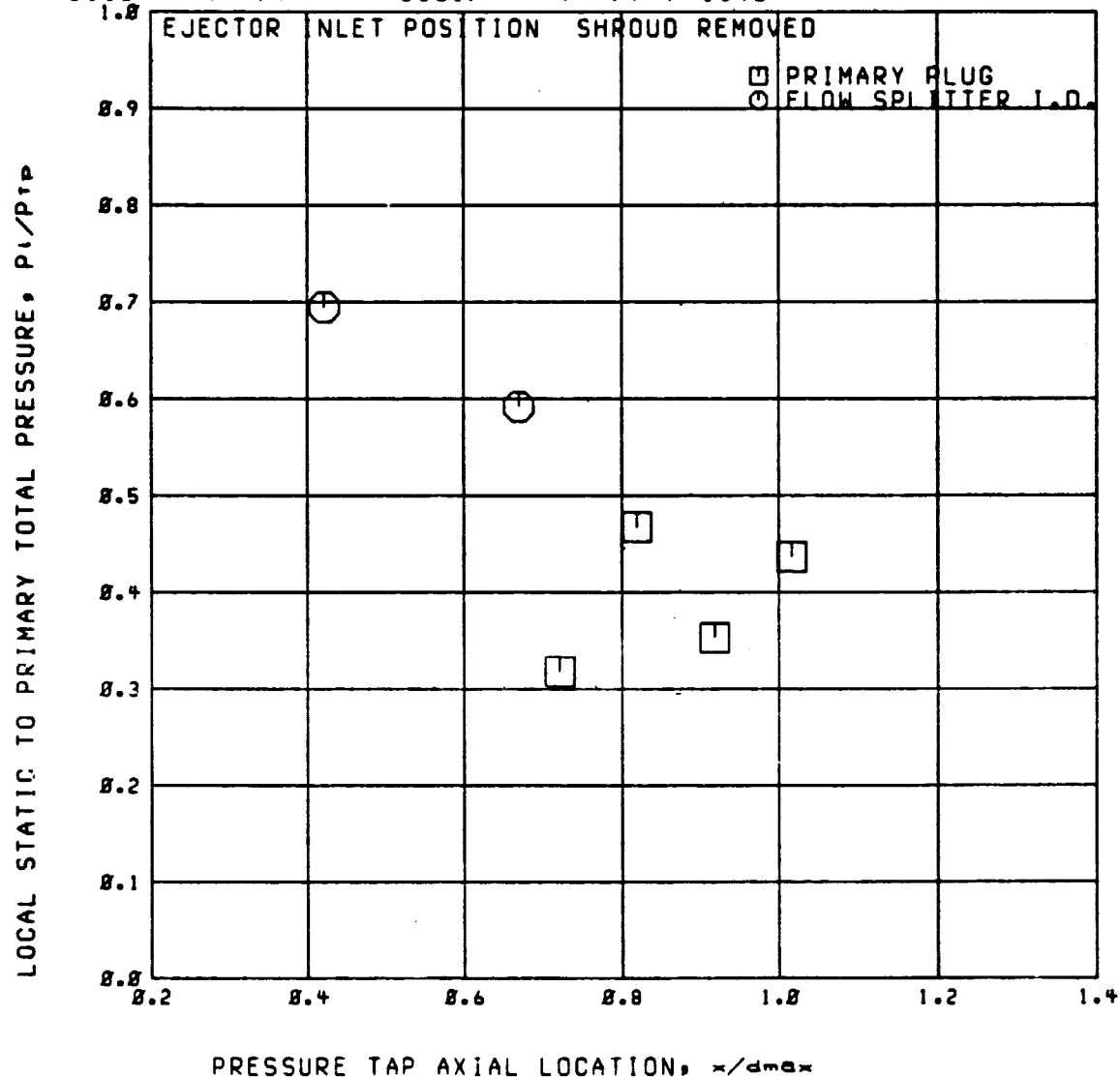
C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS RDG=2717  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF  
 $M_o = 0.86$   $P_{tr}/P_o = 4.841$   $P_{tr}/P_{tp} = 1.47$



RUN 61

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS ROD=2718  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

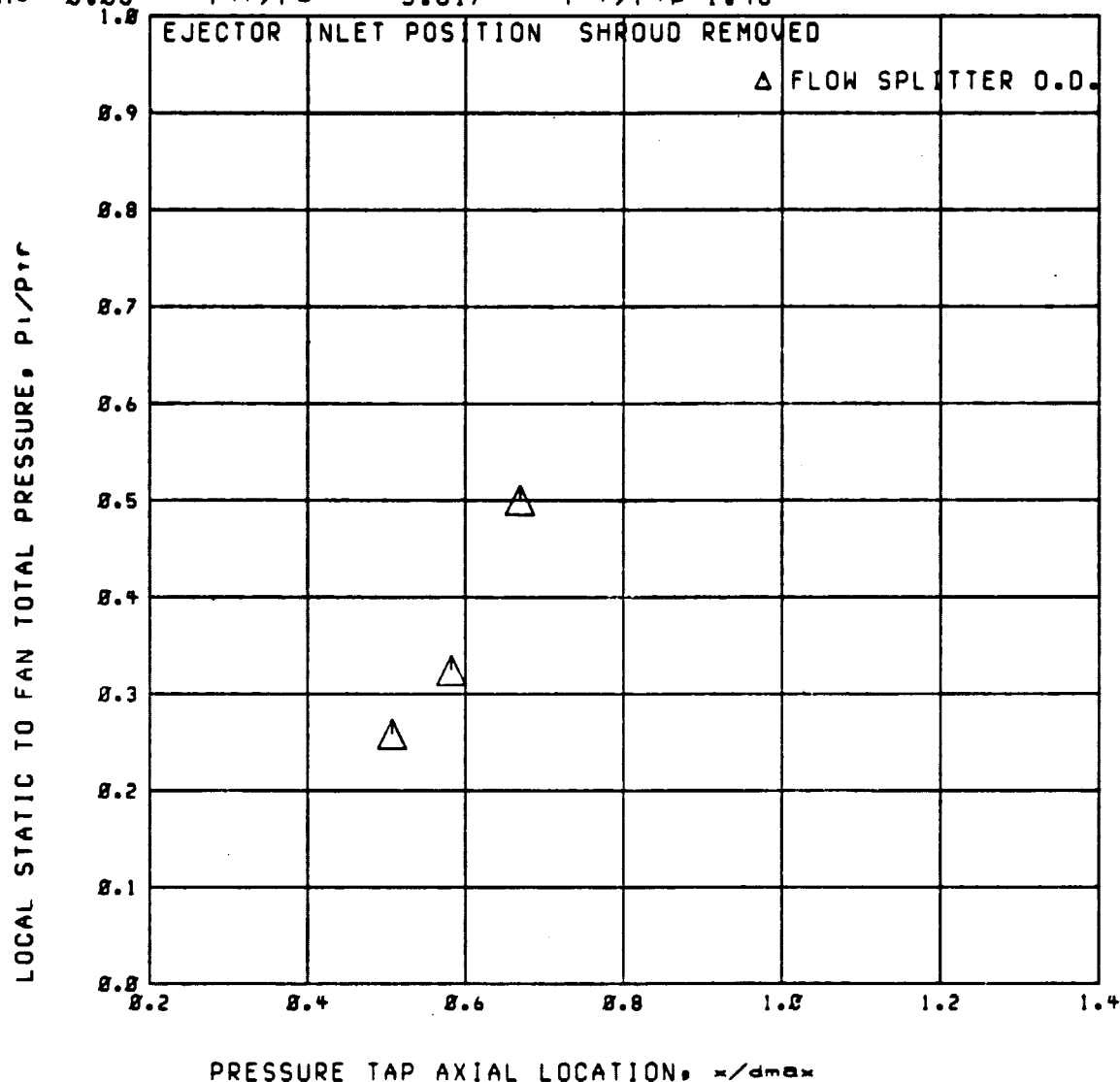
$M_o = 0.86$   $P_{tr}/P_o = 3.617$   $P_{tr}/P_{tp} = 1.46$



RUN 61

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS RDG=2718  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.86$   $P_{tr}/P_0 = 3.617$   $P_{tr}/P_{tp} = 1.46$

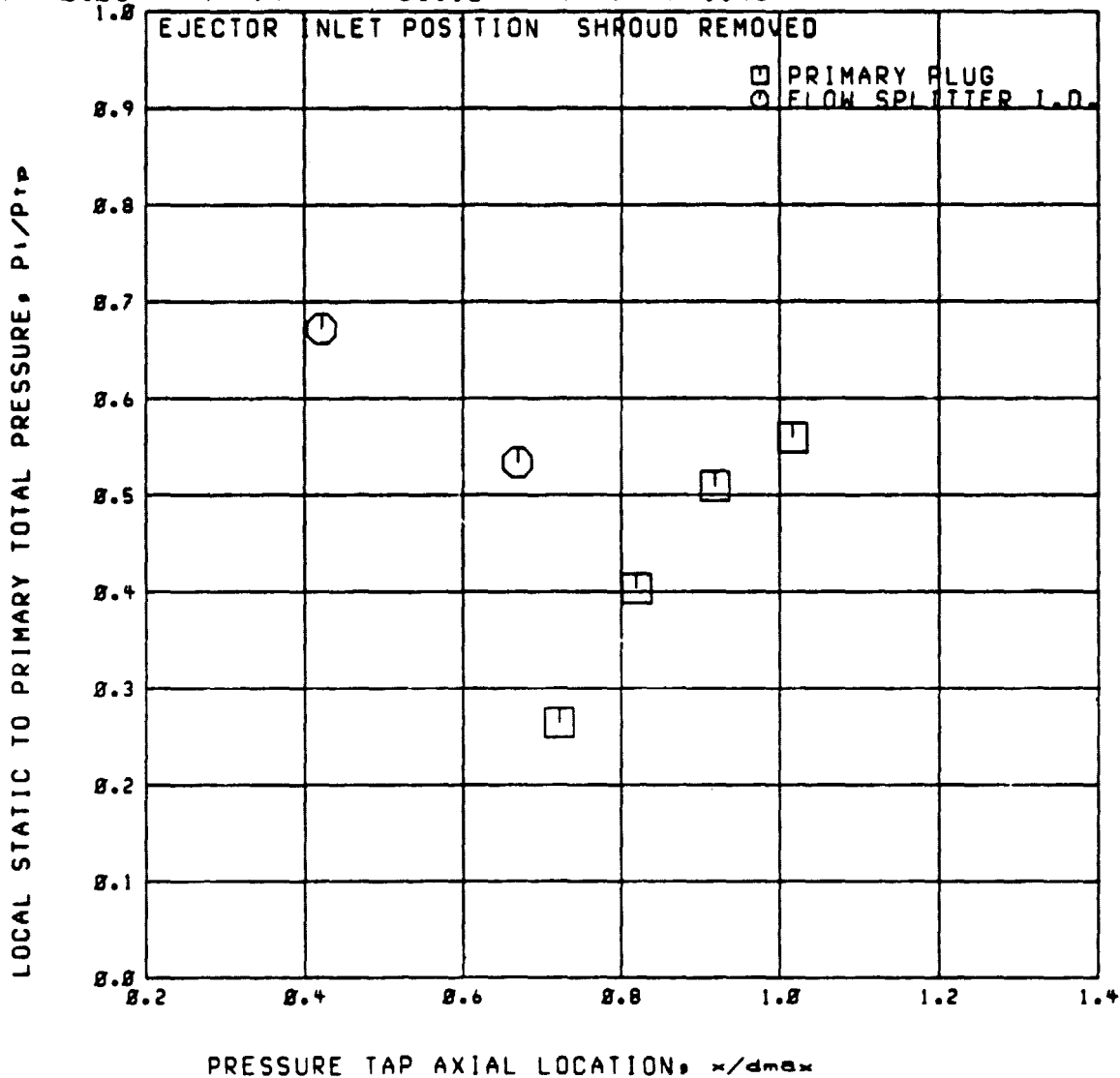




RUN 61

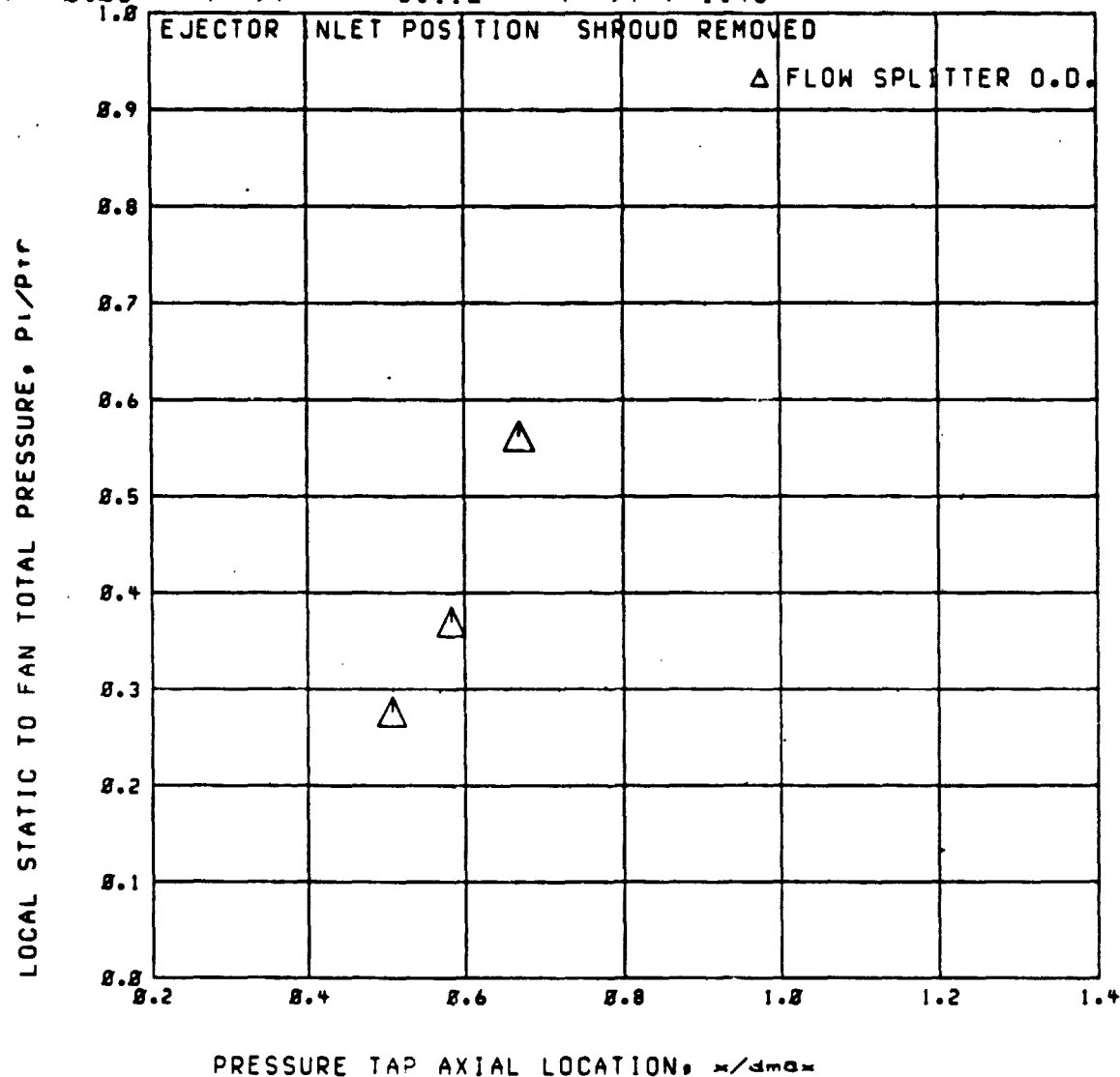
C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS RDG=2728  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$   $P_{tr}/P_0 = 3.112$   $P_{tr}/P_{tp} = 1.48$



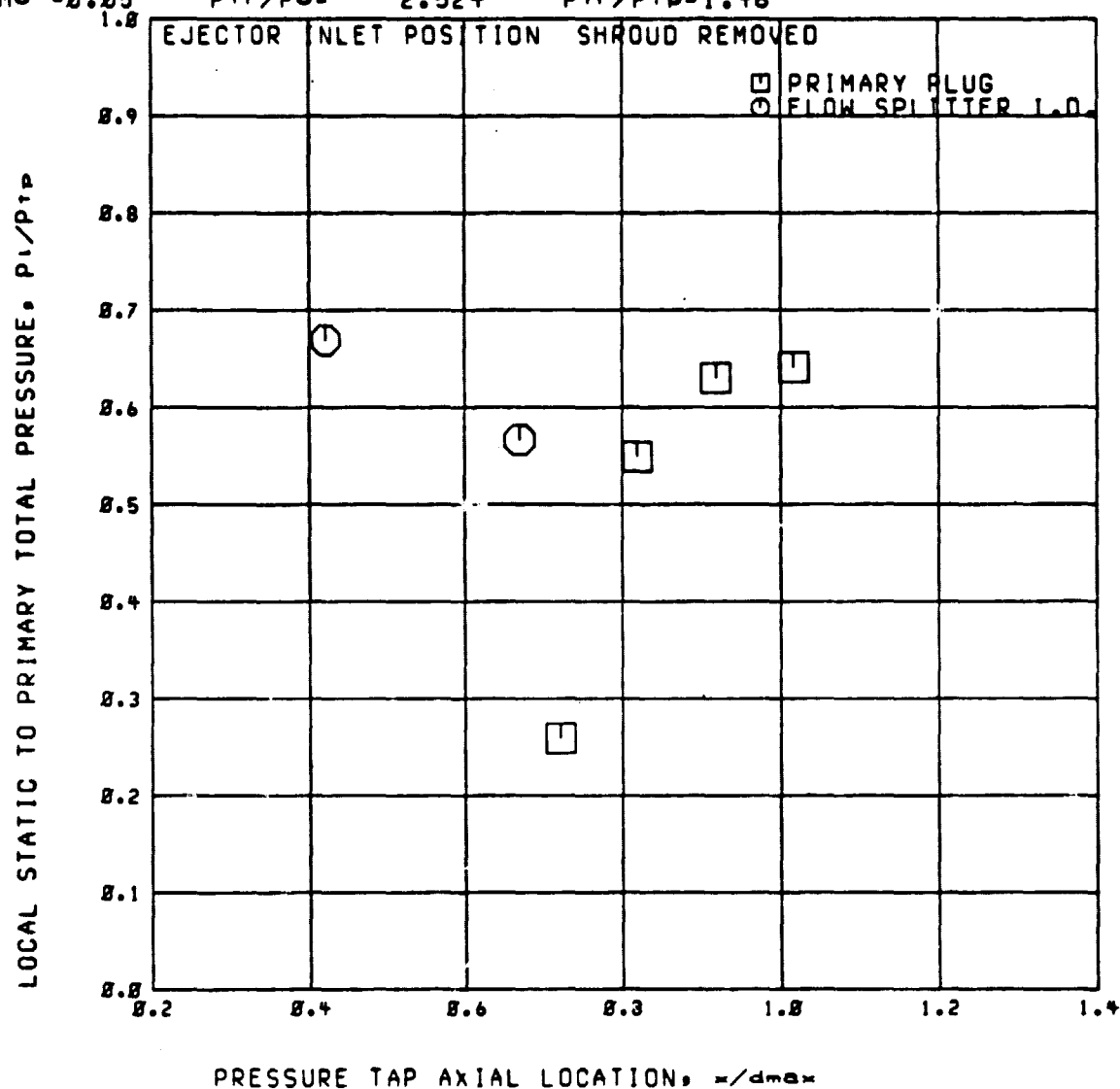
RUN 61

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS RDG=2728  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF  
 $M_0 = 0.85$   $P_{tr}/P_0 = 3.112$   $P_{tr}/P_{tr0} = 1.48$



RUN C1

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS ROD=2721  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF  
 $M_0 = 0.05$   $P_{tr}/P_{00} = 2.524$   $P_{tr}/P_{tr} = 1.46$

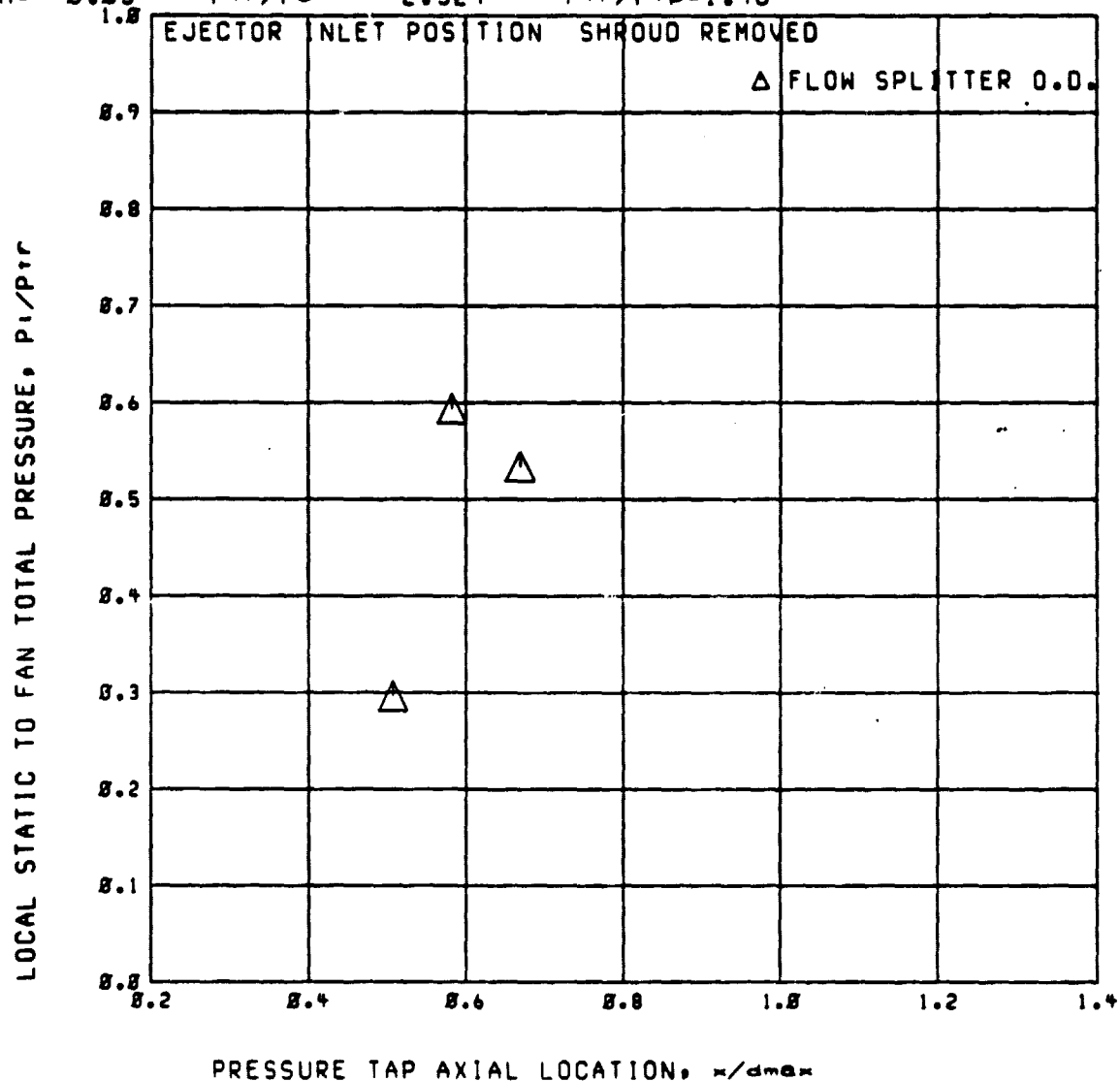


RUN 61

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS  
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

RDG=2721

$M_0 = 0.85$   $P_{tr}/P_0 = 2.524$   $P_{tr}/P_{tr} = 1.46$

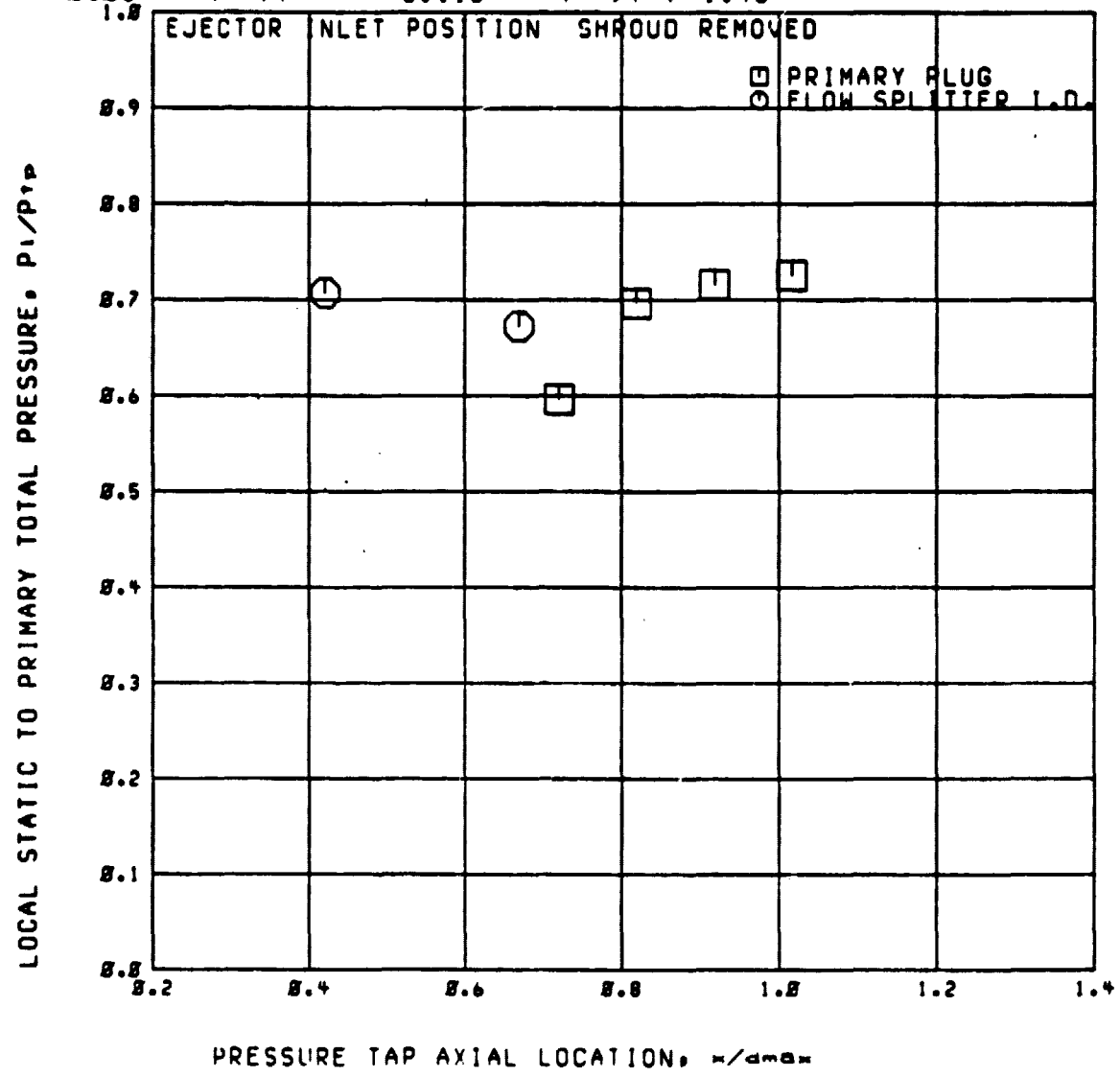


ORIGINAL PAGE IS  
OF POOR QUALITY

RUN 61

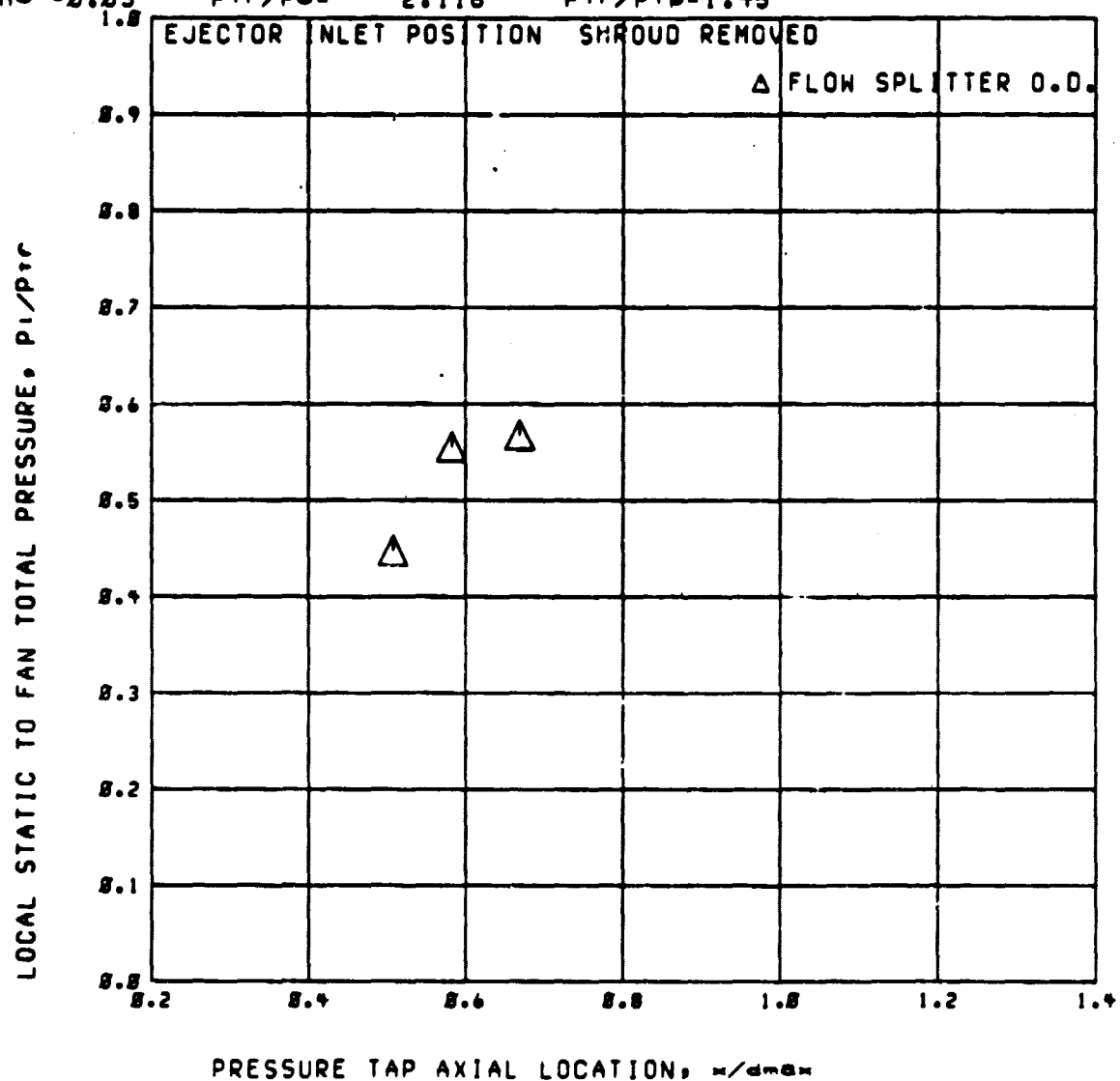
C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIARY DOORS RDG=2722  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.83$   $P_{tr}/P_0 = 2.116$   $P_{tr}/P_{tr} = 1.45$



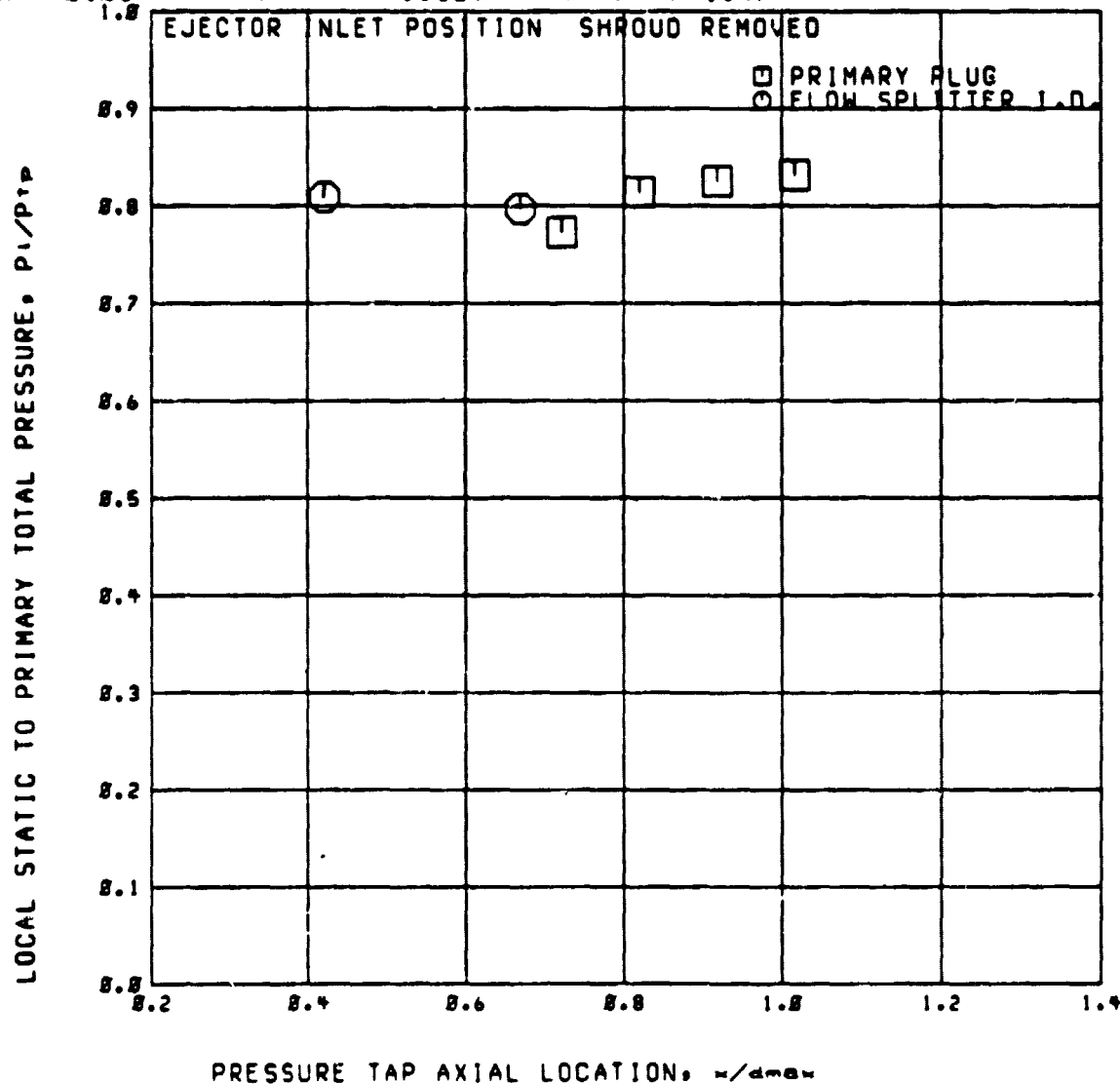
RUN 61

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS RDG=2722  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF  
 $M = 0.83$   $P_{tr}/P_{te} = 2.116$   $P_{tr}/P_{te} = 1.45$



RUN 61

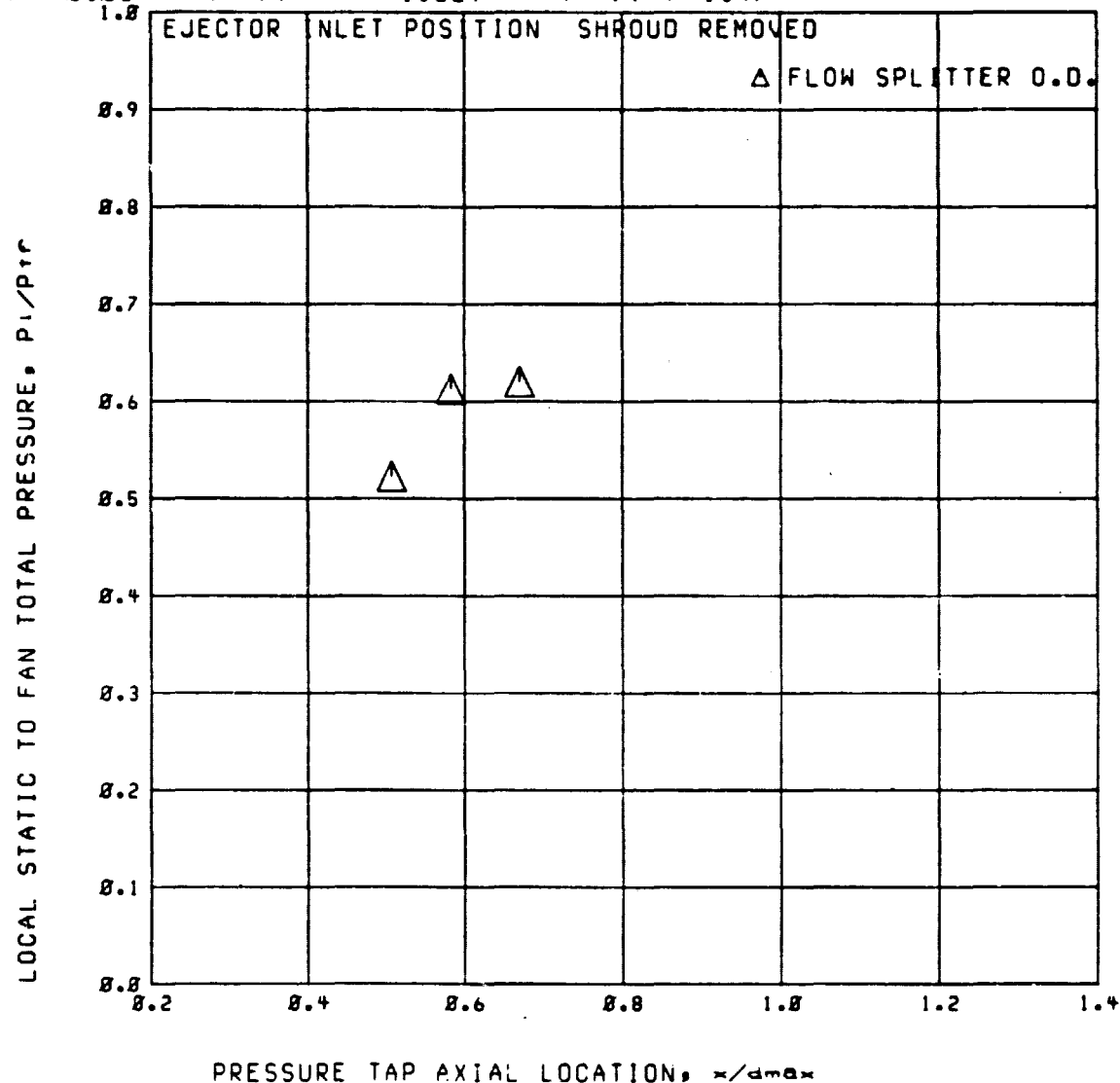
C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS ROD-2723  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF  
 $M = 0.83$   $P_{tr}/P_{\infty} = 1.829$   $P_{tr}/P_{tr} = 1.47$



RUN 61

C3 20DEG BOATTAIL SECTION REMOVED FROM TERTIERY DOORS RDG=2723  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.83$   $P_{tr}/P_0 = 1.829$   $P_{tr}/P_{tp} = 1.47$





**CONFIGURATION A<sub>3</sub>**

**IRIS FLAP NOZZLE**

**TAKEOFF**

RDG. 1864-1396

A33

TAKEOFF

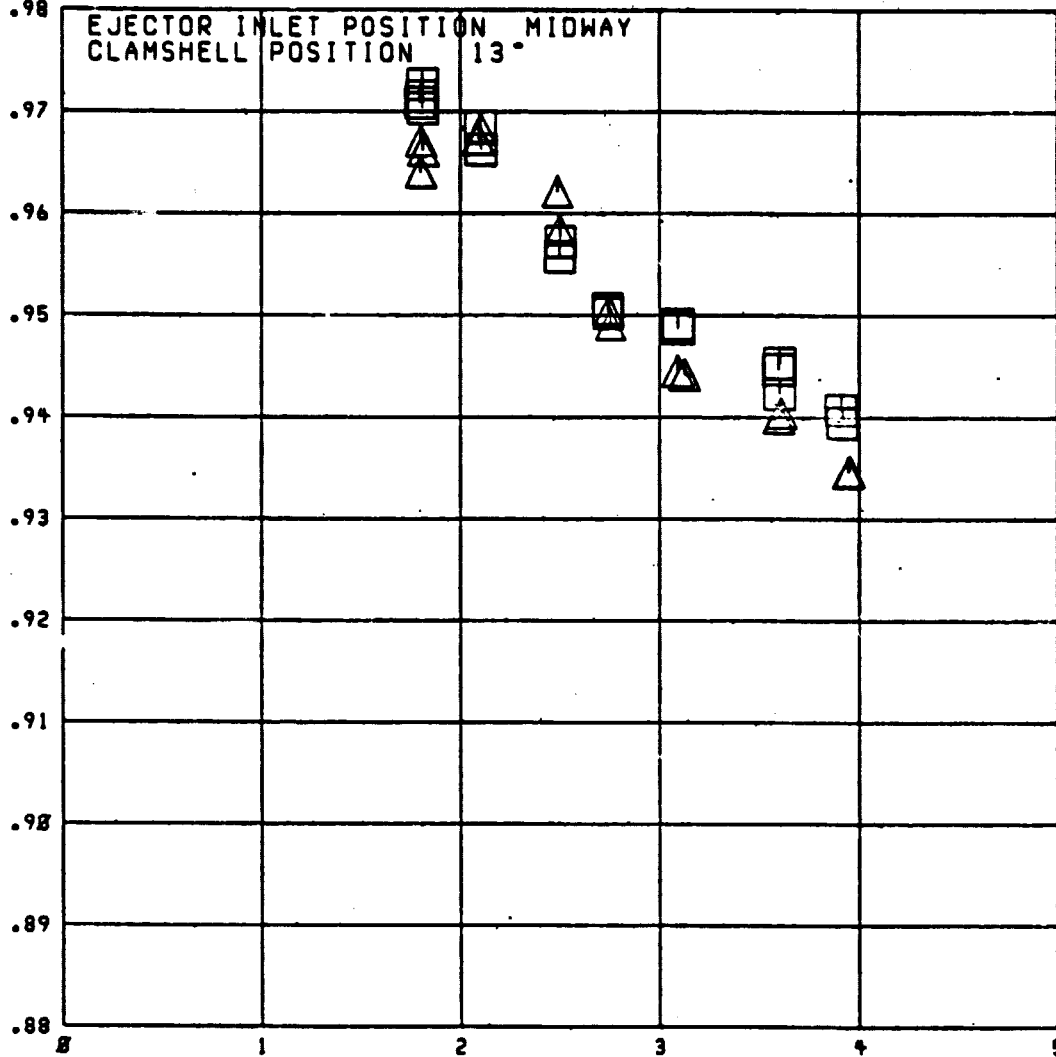
RUN 35

$M_0 = 0$

$M_0 = 0.84$

$P_{t0}/P_{t2} = \square = 1.46$   
 $\Delta = 1.78$

NOZZLE GROSS THRUST COEFFICIENT,  $CFPI$



FAN NOZZLE PRESSURE RATIO,  $PTF/PO$

ORIGINAL PAGE IS  
OF POOR QUALITY

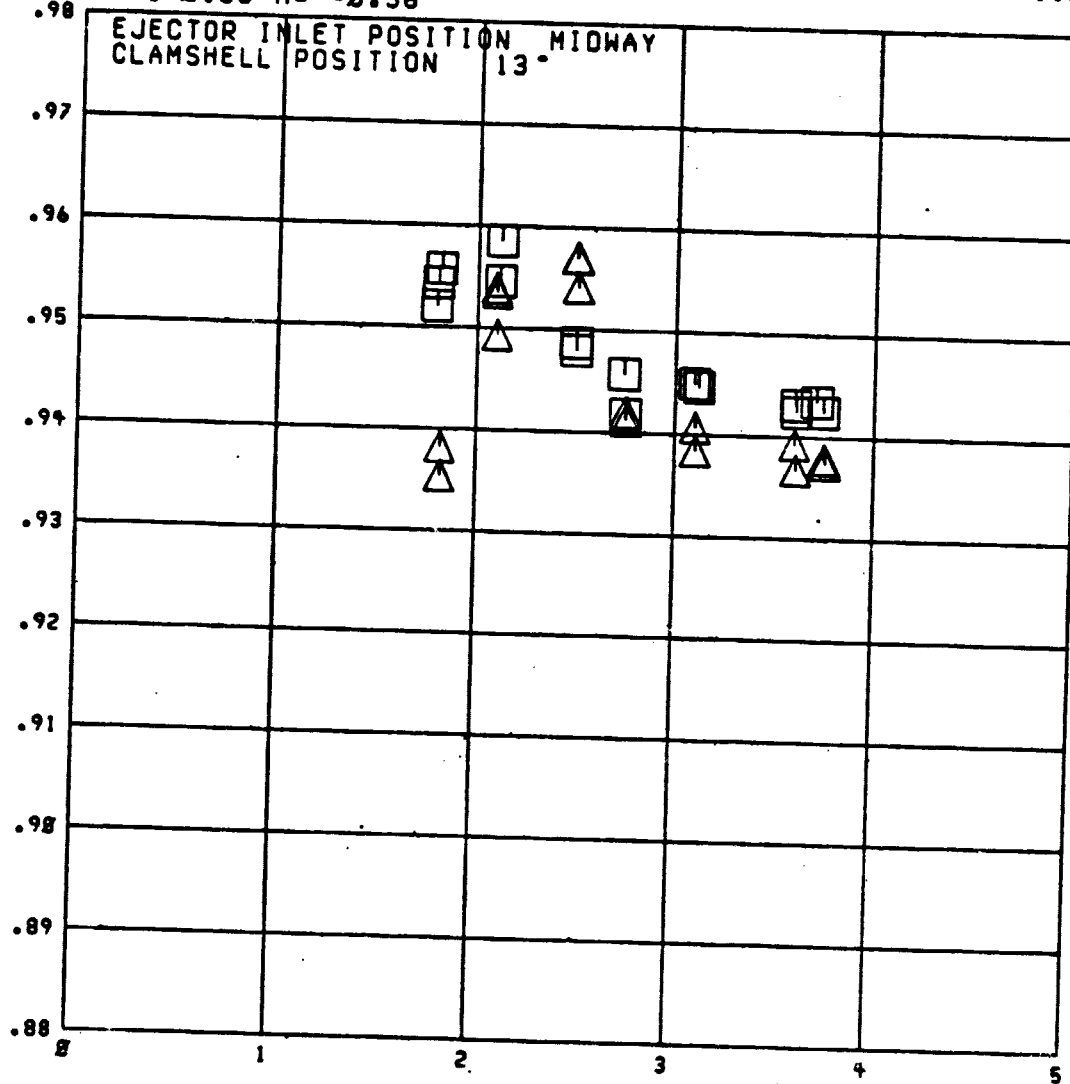
RDG 1897-1927

A33  
TAKEOFF

RUN 35  $M_0 = 0.36$   $M_e = 0.36$

$P_{tC}/P_{tD} = \square = 1.46$   
 $\Delta = 1.78$

NOZZLE GROSS THRUST COEFFICIENT, CFP1



FAN NOZZLE PRESSURE RATIO, PTF/PO

RDG 1864-1896

A33

TAKEOFF

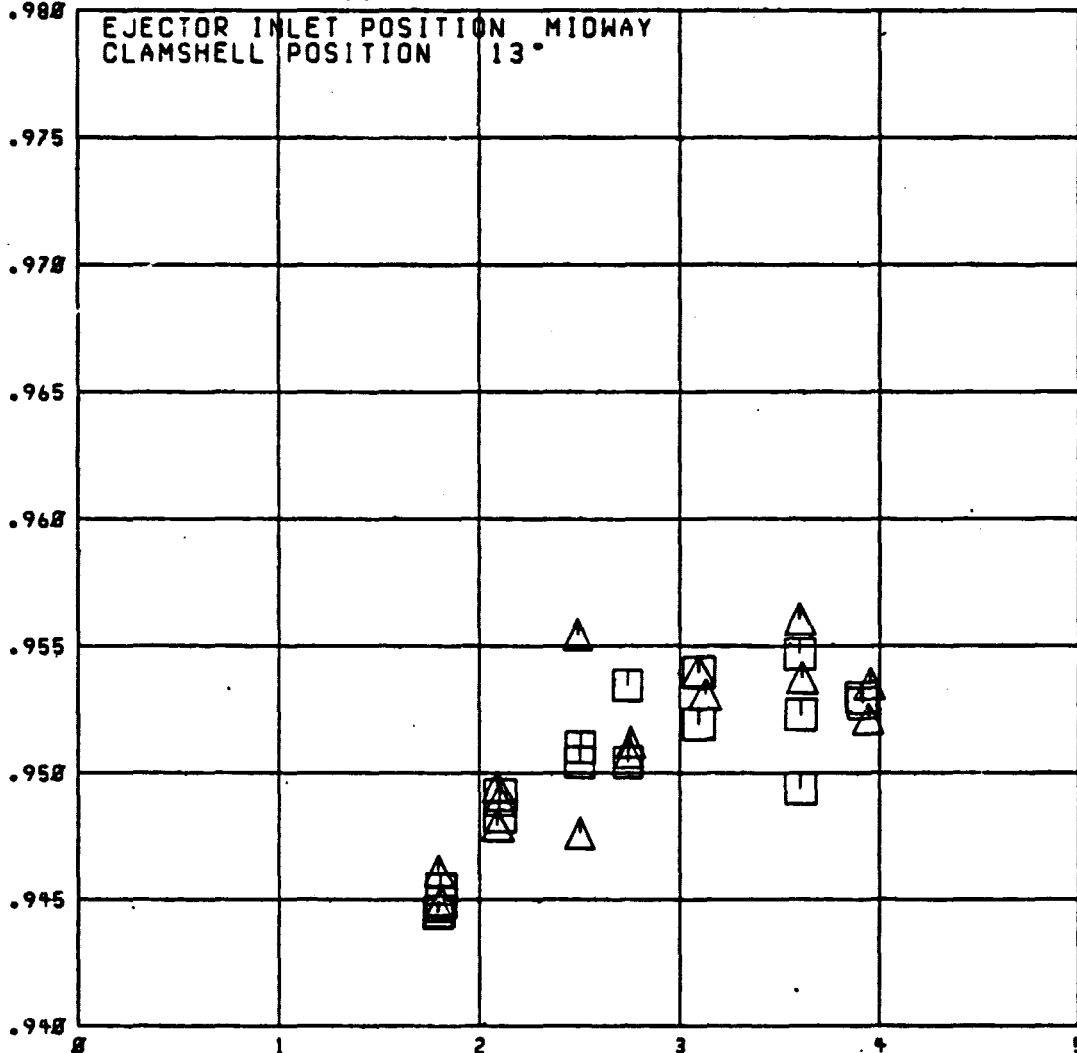
RUN 35

MO=8

Me = 0.84

$P_{tr}/P_{tp} = \square = 1.46$   
 $\Delta = 1.78$

FAN-NOZZLE FLOW COEFFICIENT, CDF



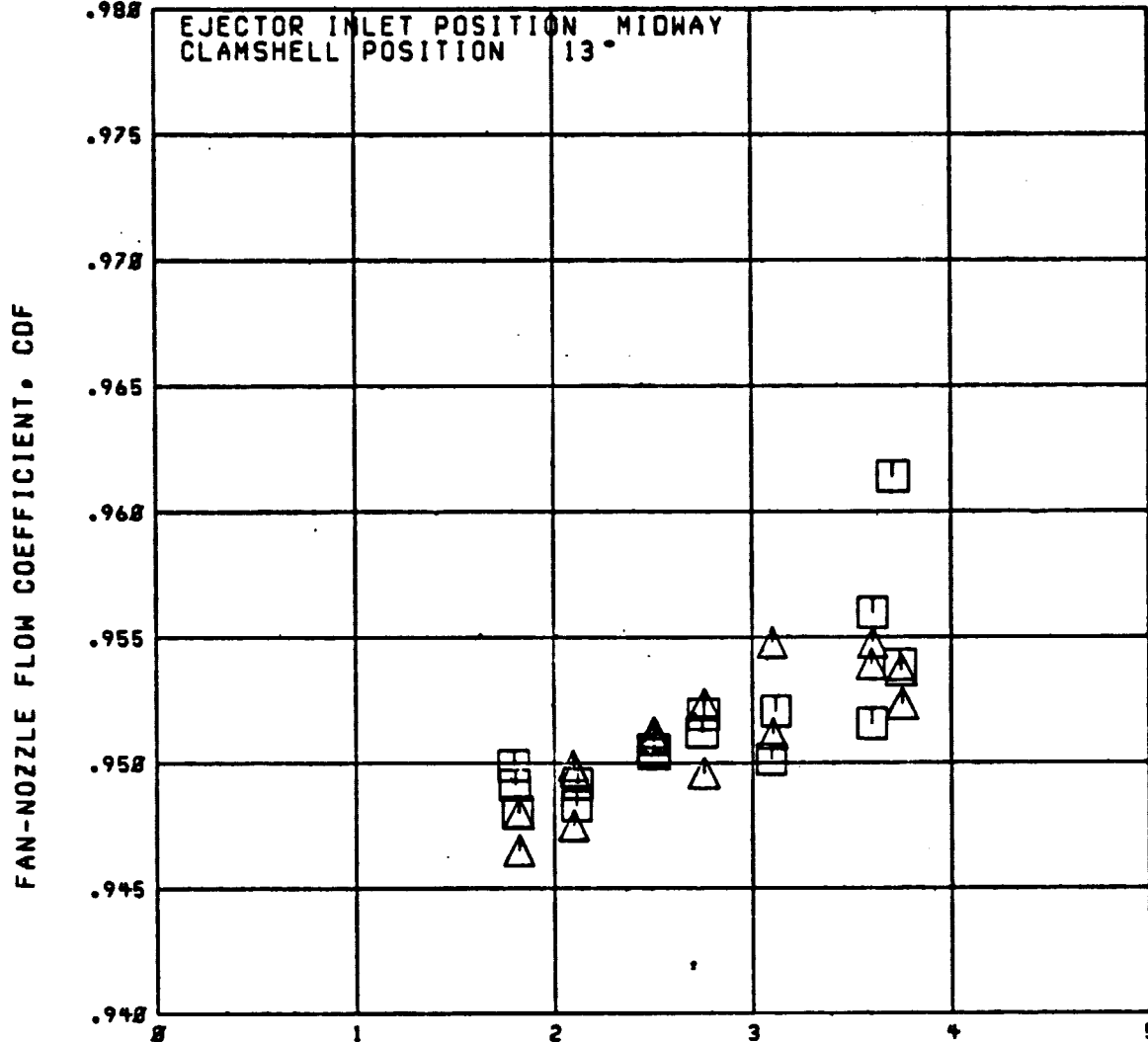
FAN NOZZLE PRESSURE RATIO, PTF/PO

RDG. 1897-1927

A33  
TAKEOFF

RUN 35  $M_0 = 0.36$   $M_\infty = 0.36$

$P_{tr}/P_{tp} = \square = 1.46$   
 $\Delta = 1.78$



FAN NOZZLE PRESSURE RATIO,  $PTF/PO$

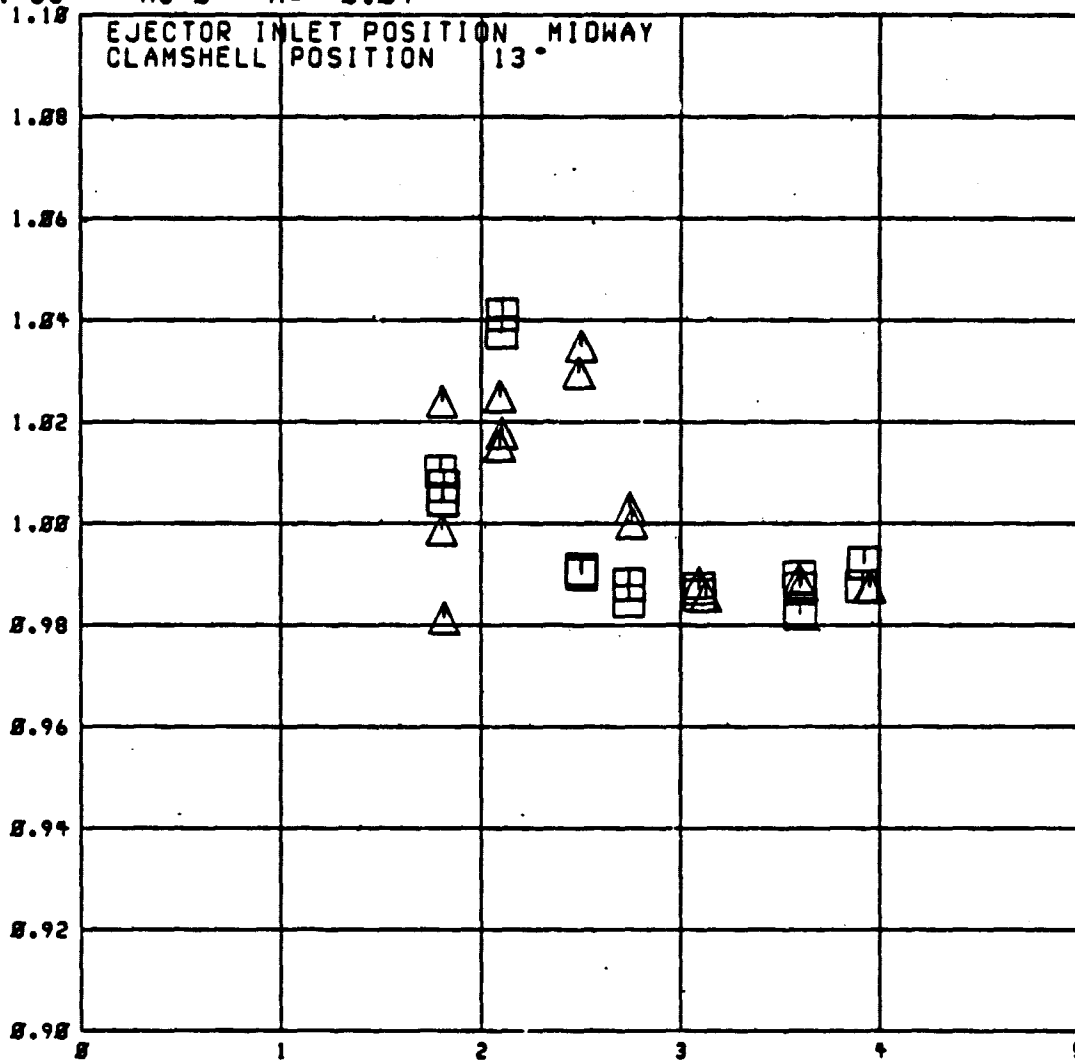
RDG. 1864-1896

A33  
TAKEOFF  
RUN 35

MO=8 M= 8.84

$P_{1C}/P_{1D} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, COP



FAN NOZZLE PRESSURE RATIO, PTF/PO

RDG. 1897-1927

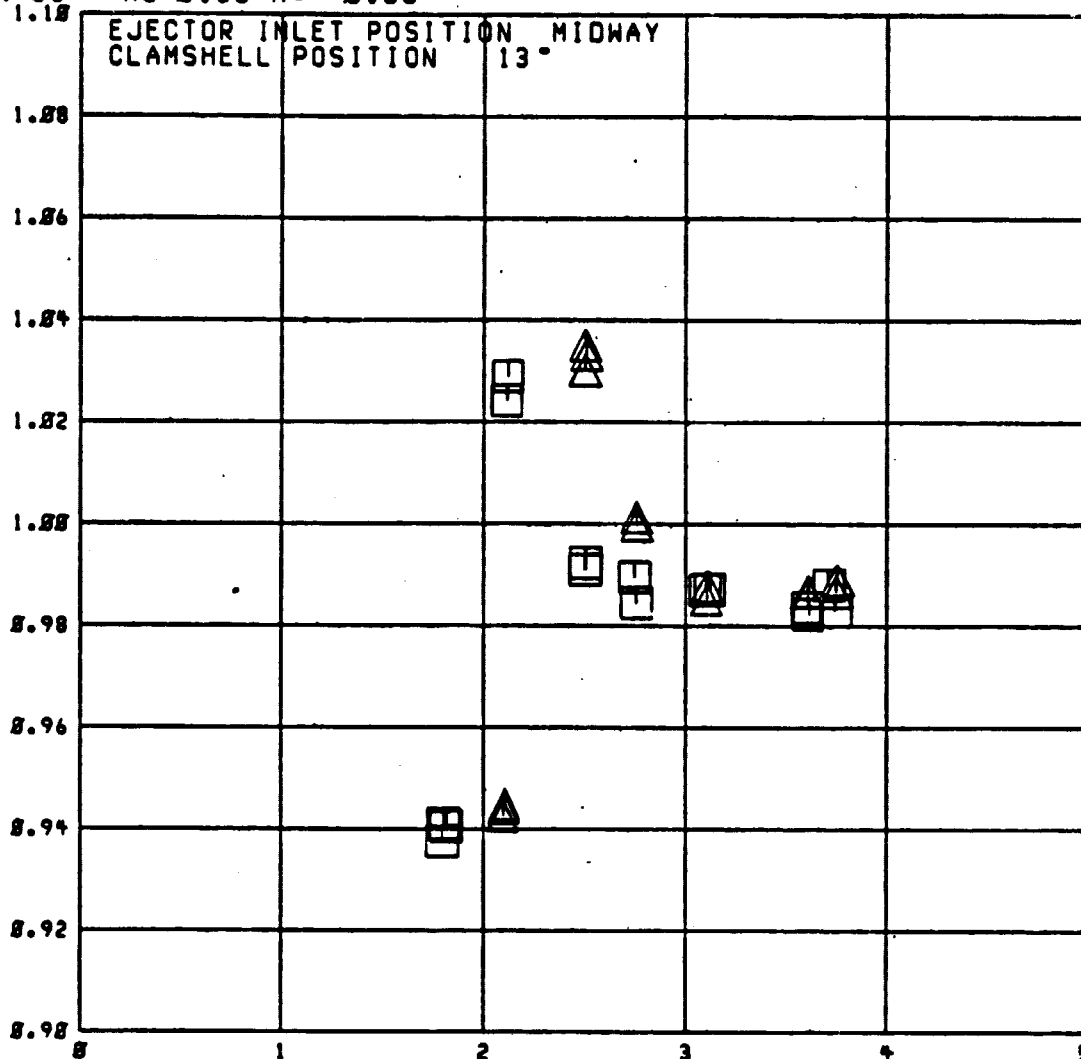
A33

TAKEOFF

RUN 35  $M_0 = 0.36$   $M_e = 0.36$

$P_{t0}/P_{t\infty} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP



FAN NOZZLE PRESSURE RATIO,  $PTF/PO$

010 01 0101  
 01 01 0101

RUN 35

A33

RDG=1881

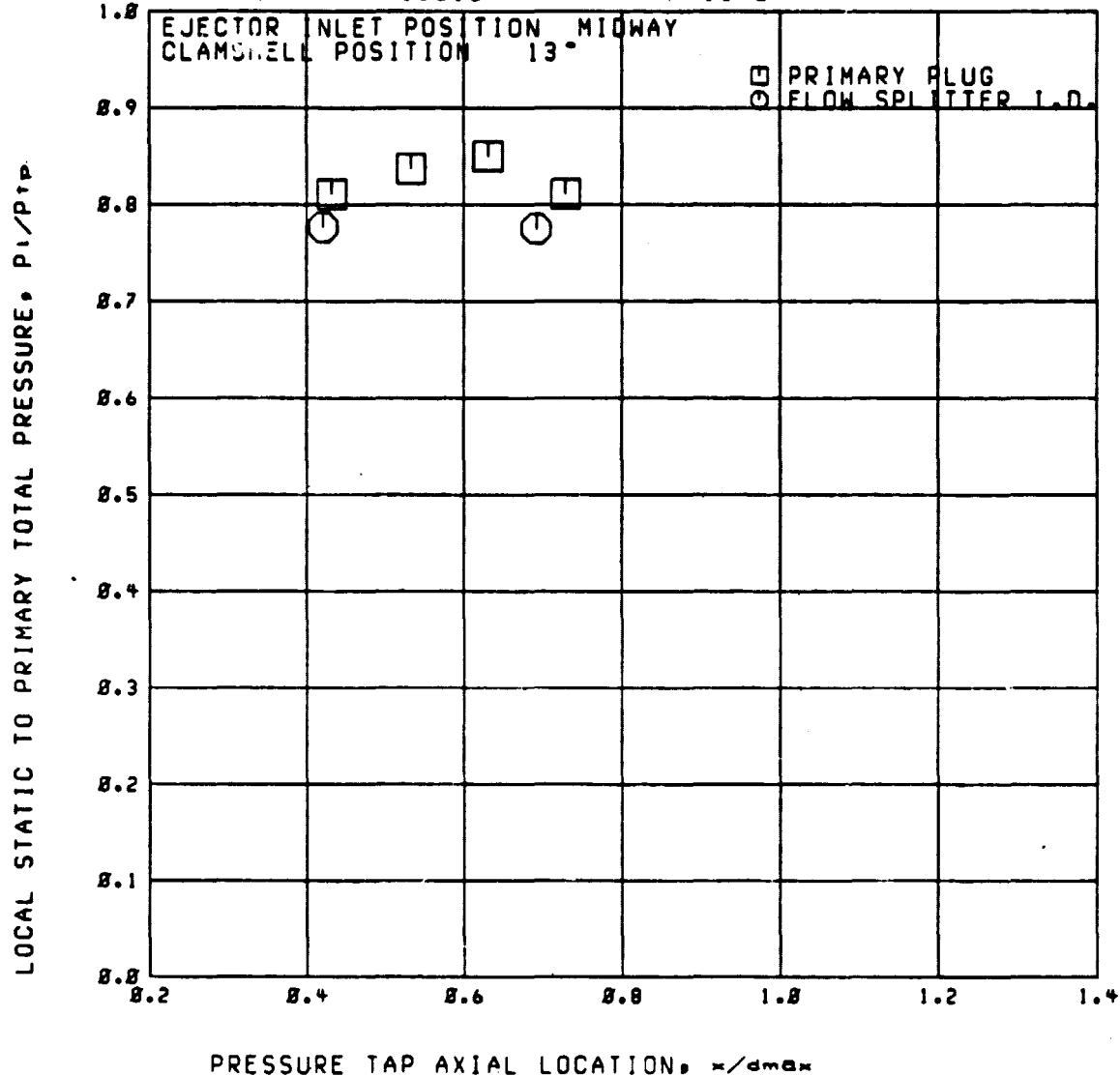
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.84$

$P_{tr}/P_0 =$

1.815

$P_{tr}/P_{tp} = 1.45$





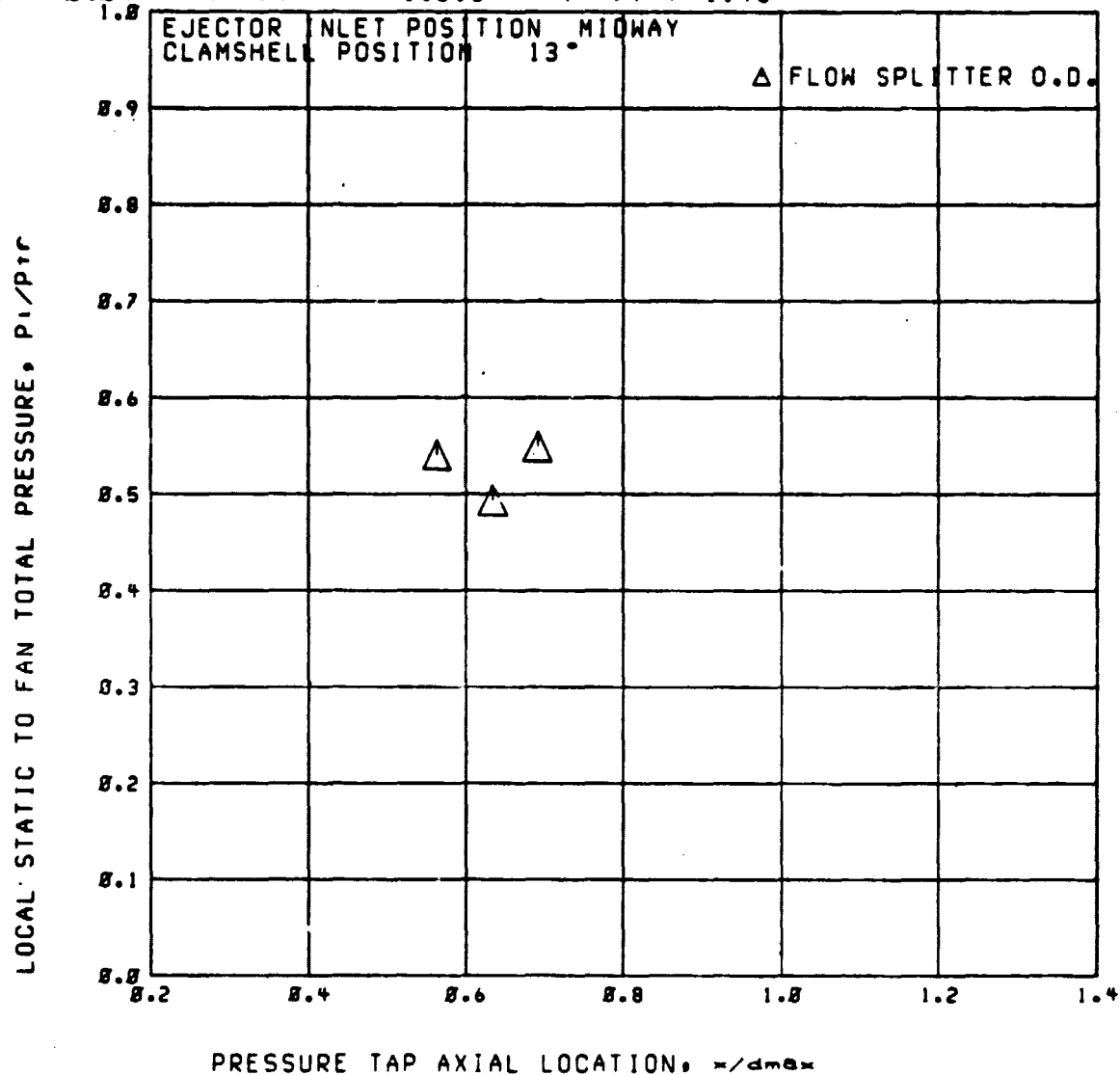
Run 35

RDG=1881

A33

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.84$   $P_{tr}/P_0 = 1.815$   $P_{tr}/P_{tr0} = 1.45$



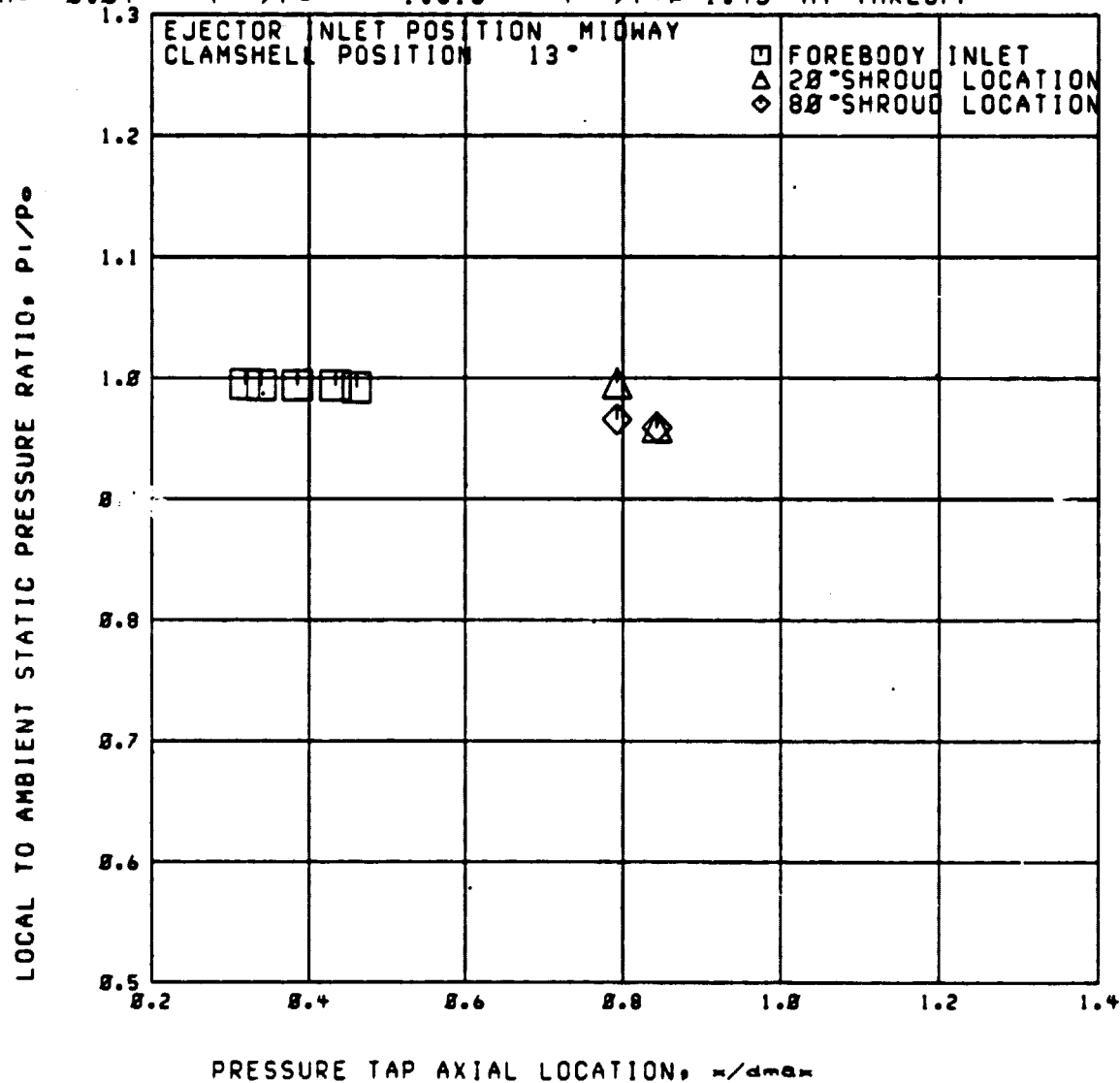
RUN 35

RDG=1881

A33

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.84$   $P_{tr}/P_0 = 1.815$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



Run 35

A33

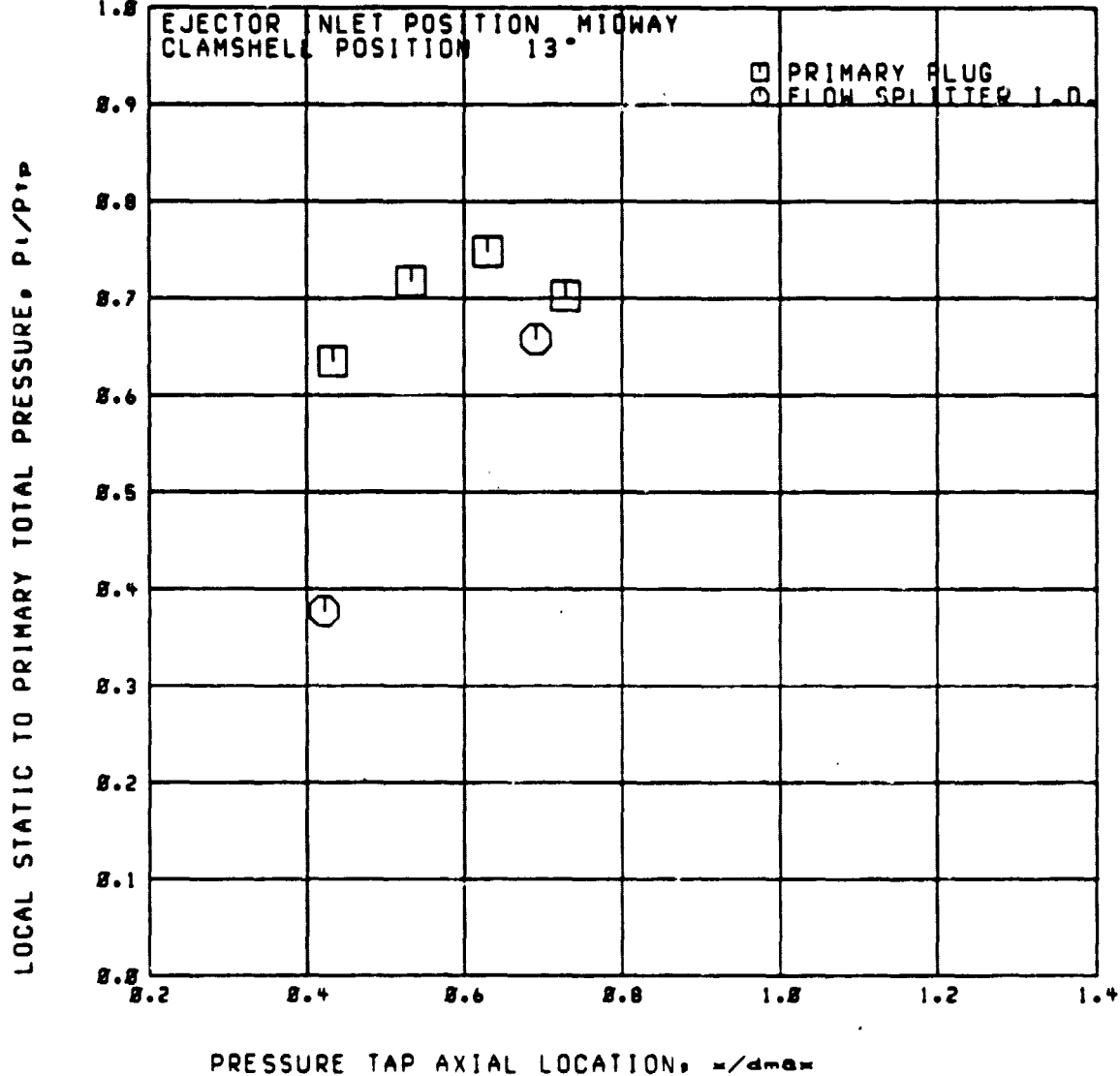
RDG=1882

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.84$

$P_{1r}/P_0 = 2.187$

$P_{1r}/P_{1p} = 1.44$



Run 35

A33

RDG=1882

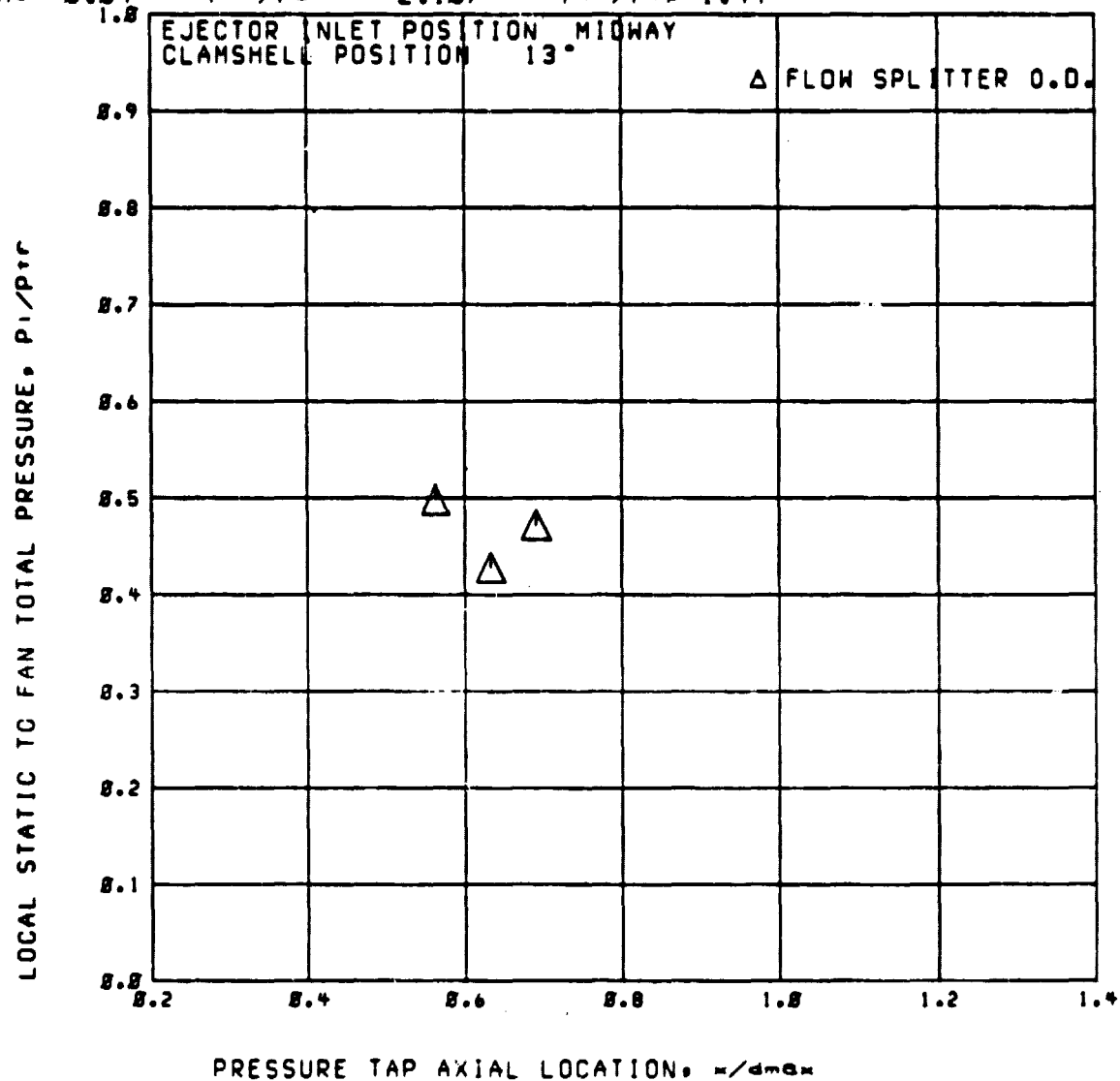
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.84$

$P_{t0}/P_{\infty} =$

2.187

$P_{t0}/P_{t0} = 1.44$



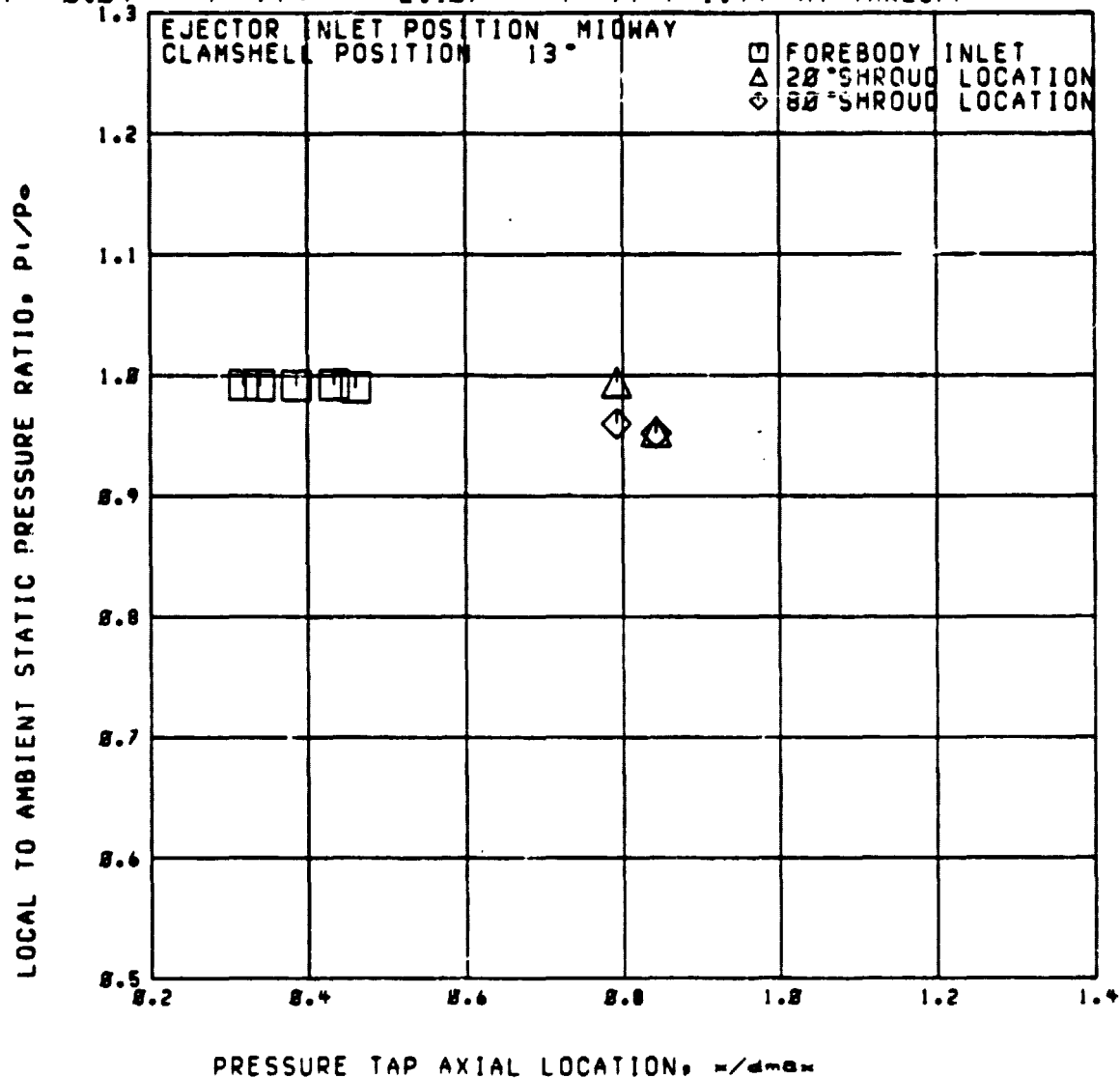
Run 35

A33

RDG=1882

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

M = 0.84     $P_{tr}/P_o = 2.187$      $P_{tr}/P_{tr} = 1.44$  AT TAKEOFF



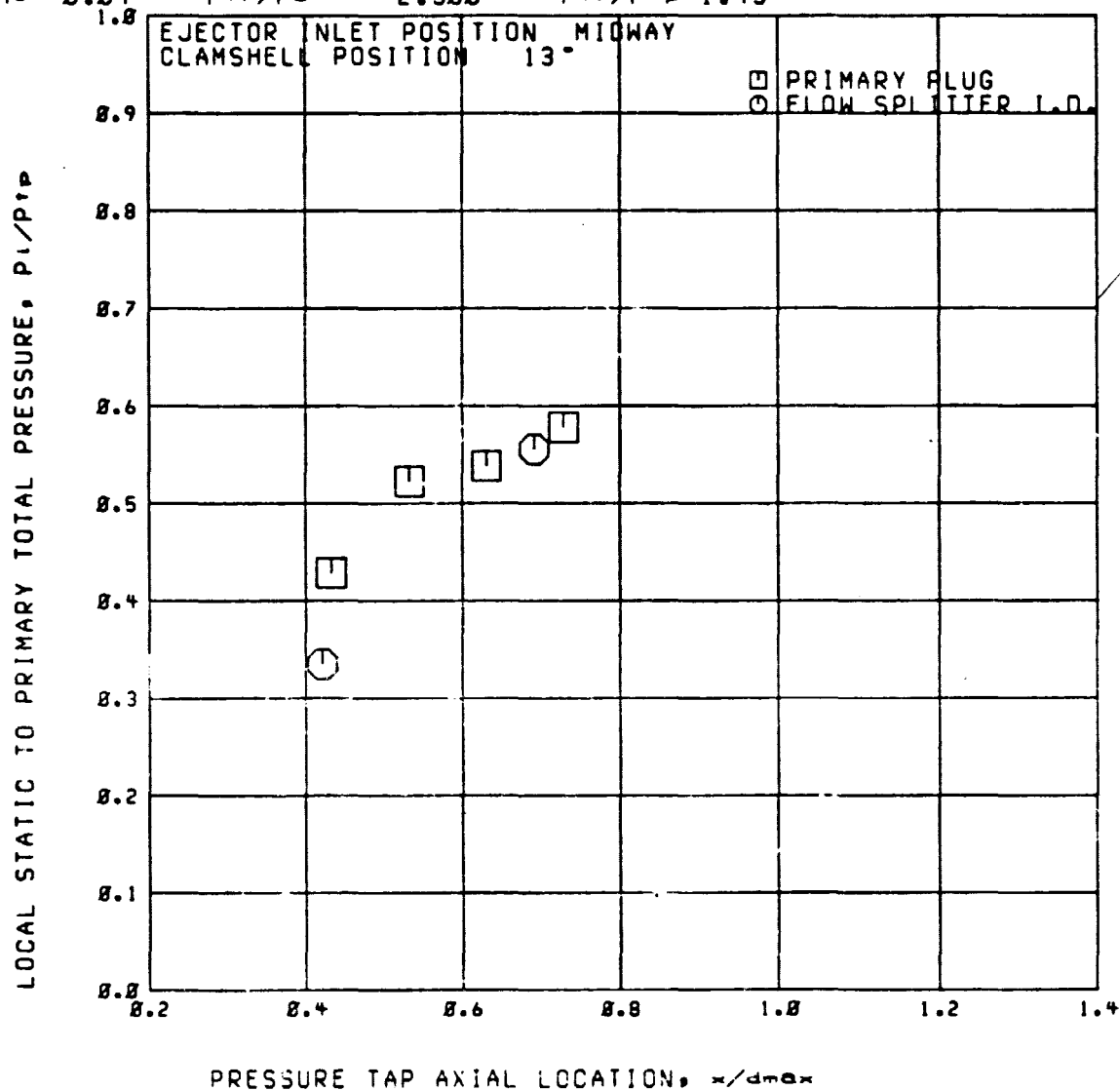
RUN 35

A33

RDG=1883

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.84$      $P_{tr}/P_0 = 2.588$      $P_{tr}/P_{tp} = 1.45$



Run 35

A33

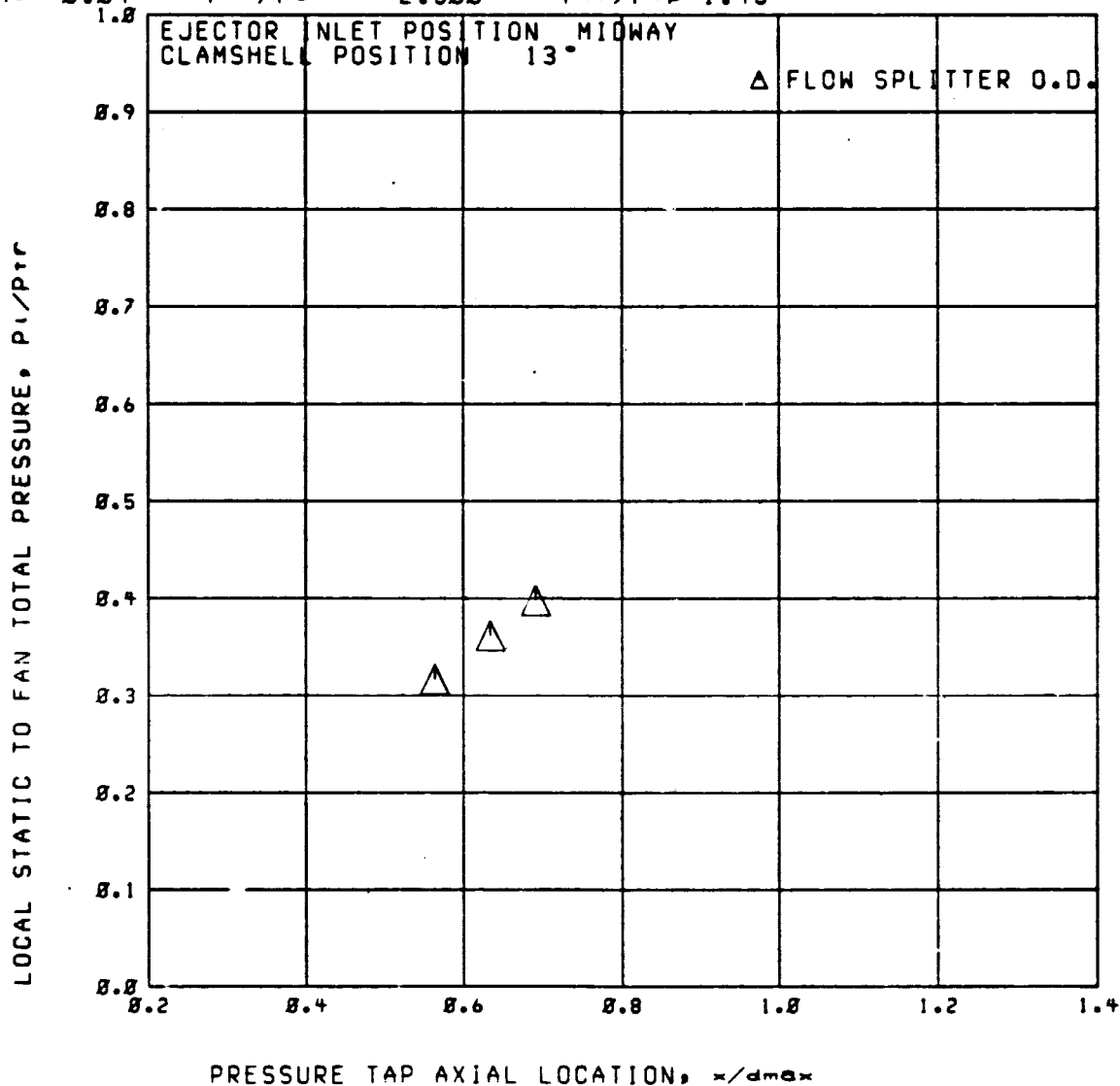
RDG=1883

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.84$

$P_{tr}/P_o = 2.500$

$P_{tr}/P_{trp} = 1.45$



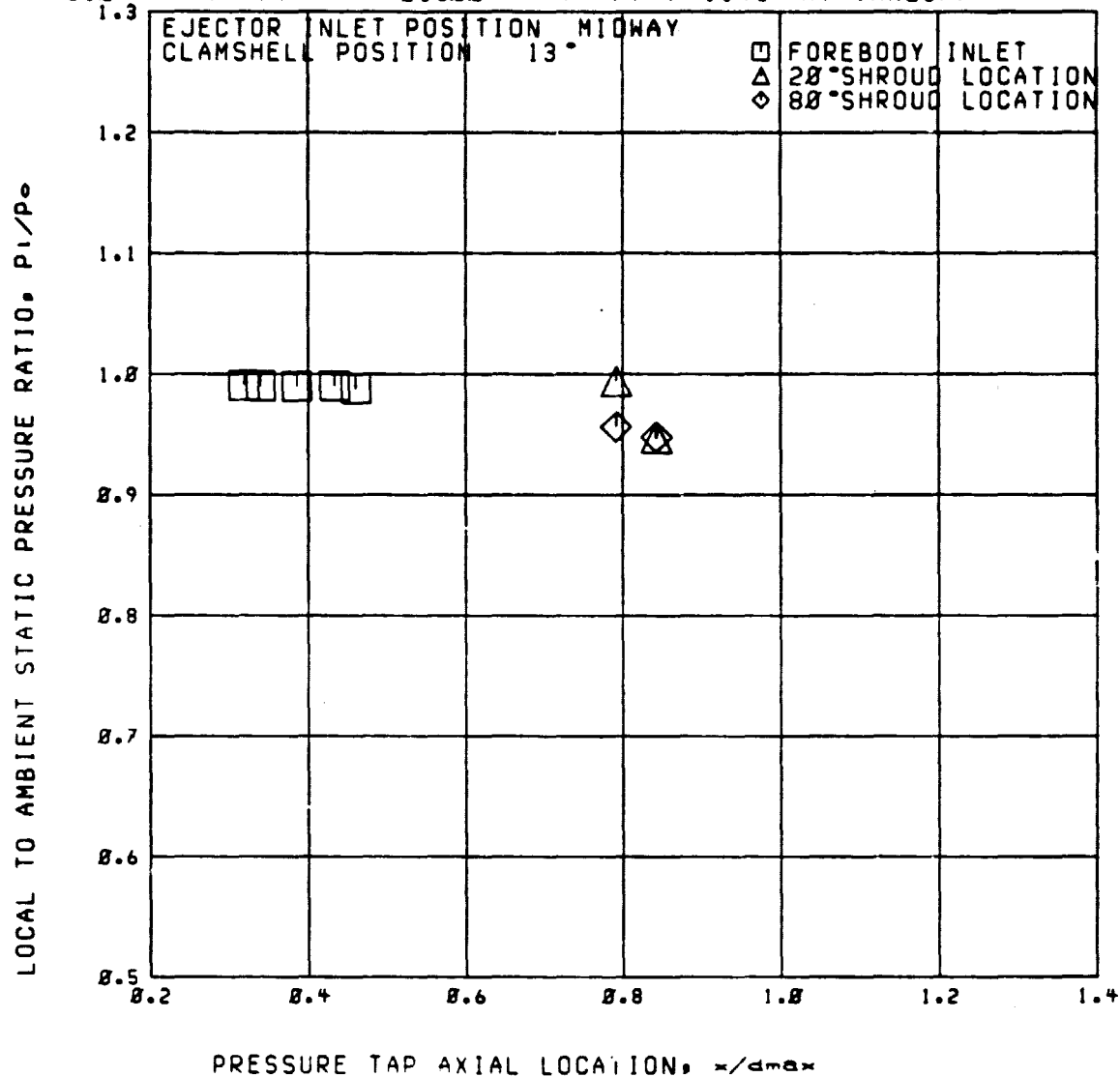
Run 35

RDG=1883

A33

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_\infty = 0.84$      $P_{tr}/P_\infty = 2.500$      $P_{tr}/P_{tp} = 1.45$  AT TAKEOFF





Run 35

A33

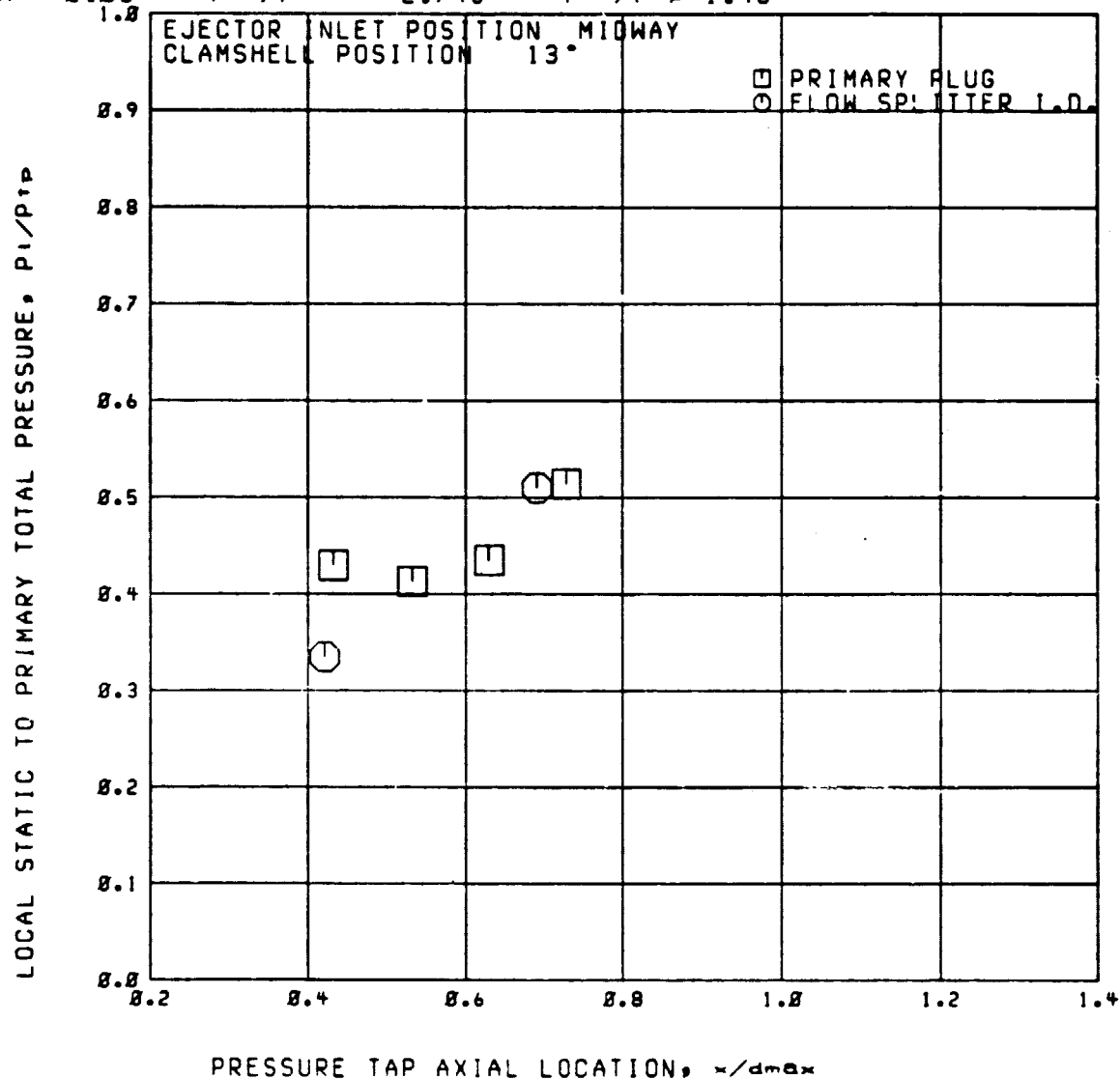
RDG=1864

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.05$

$P_{tr}/P_o = 2.743$

$P_{tr}/P_{tp} = 1.46$



Run 35

A33

ROC=1884

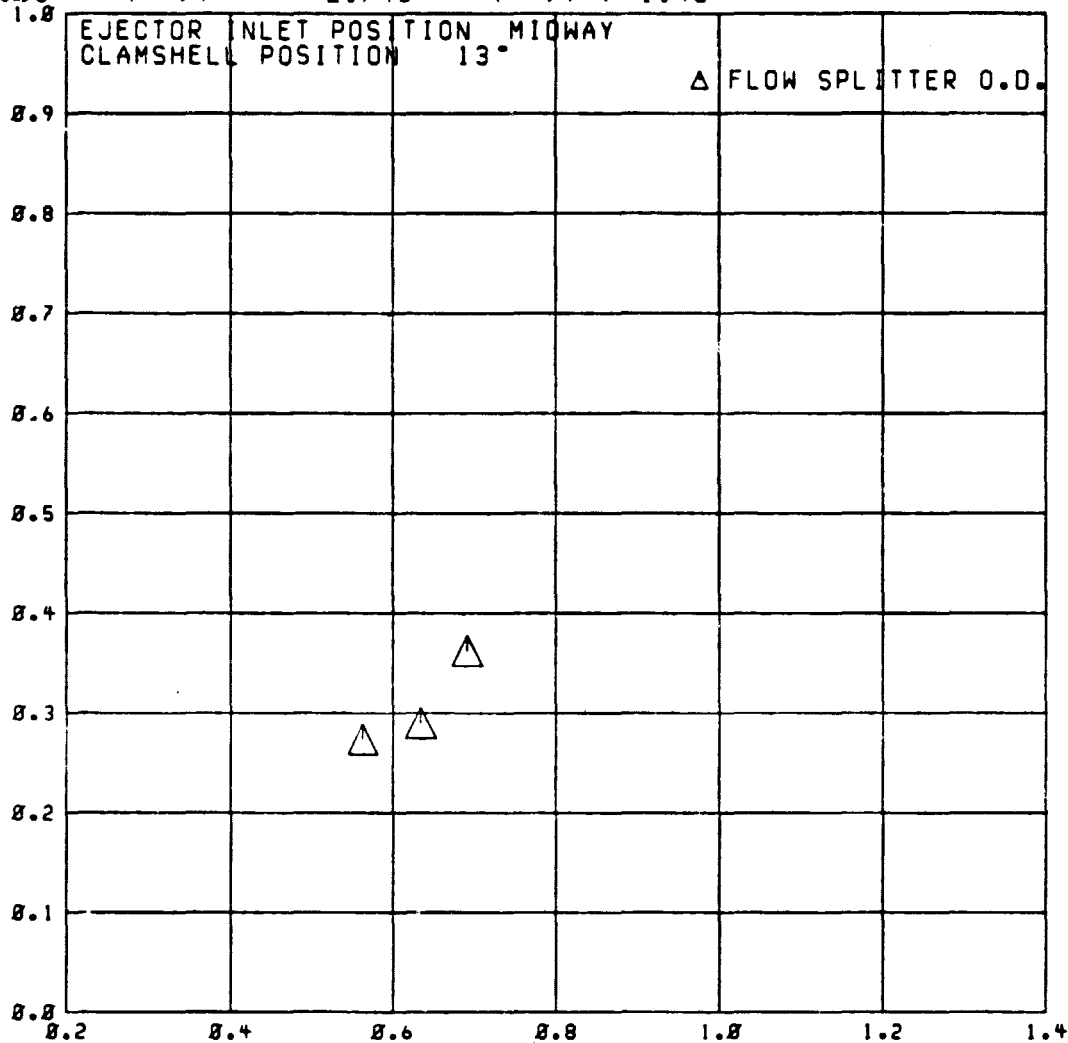
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.85$

$P_{tr}/P_0 = 2.743$

$P_{tr}/P_{tr} = 1.46$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_t/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

RUN 35

RDG=1884

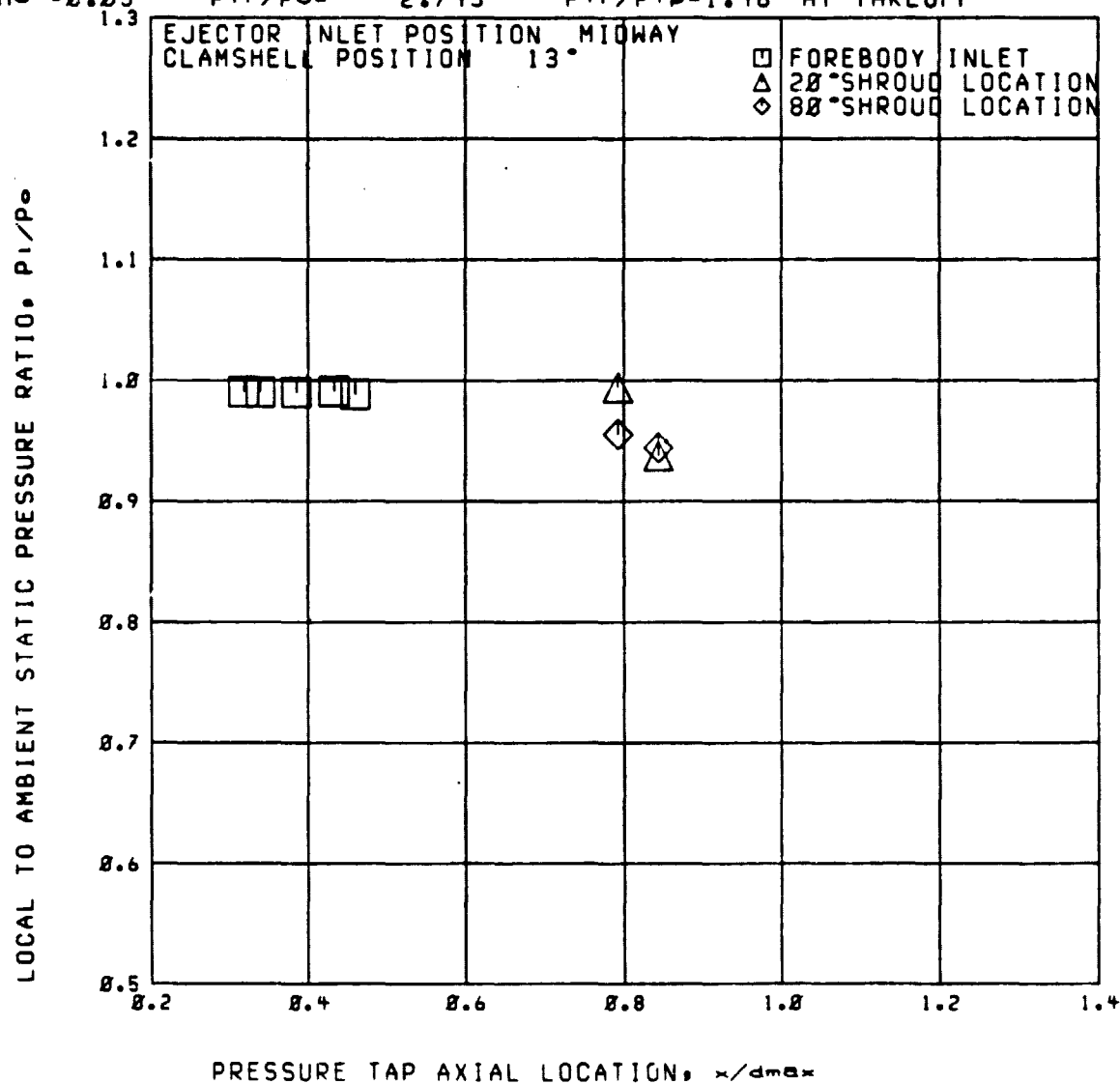
A33

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.05$

$P_{t0}/P_0 = 2.743$

$P_{t0}/P_{t0} = 1.46$  AT TAKEOFF



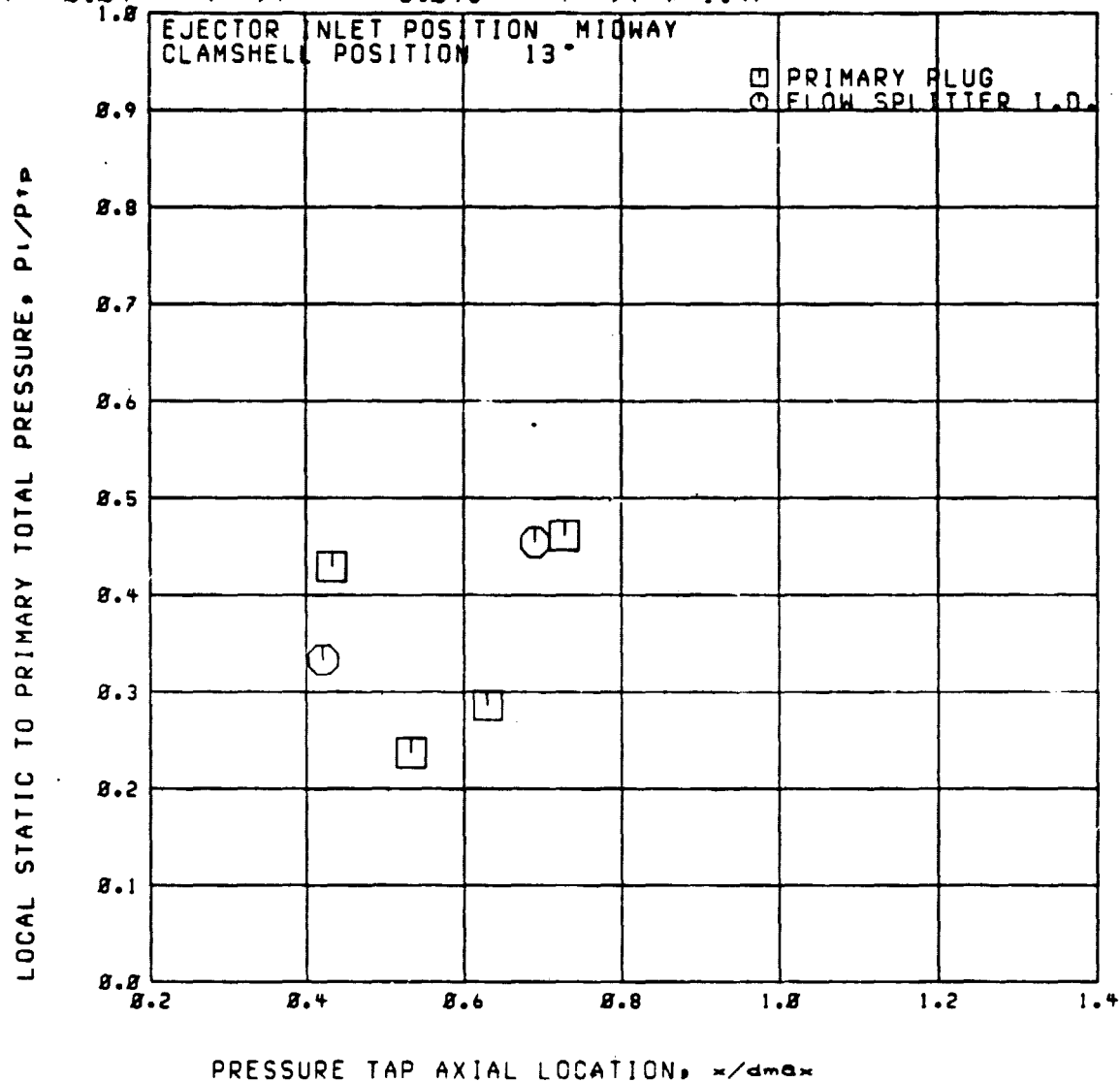
Run 35

A33

RDG=1885

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.84$   $P_{tr}/P_o = 3.895$   $P_{tr}/P_{tp} = 1.47$



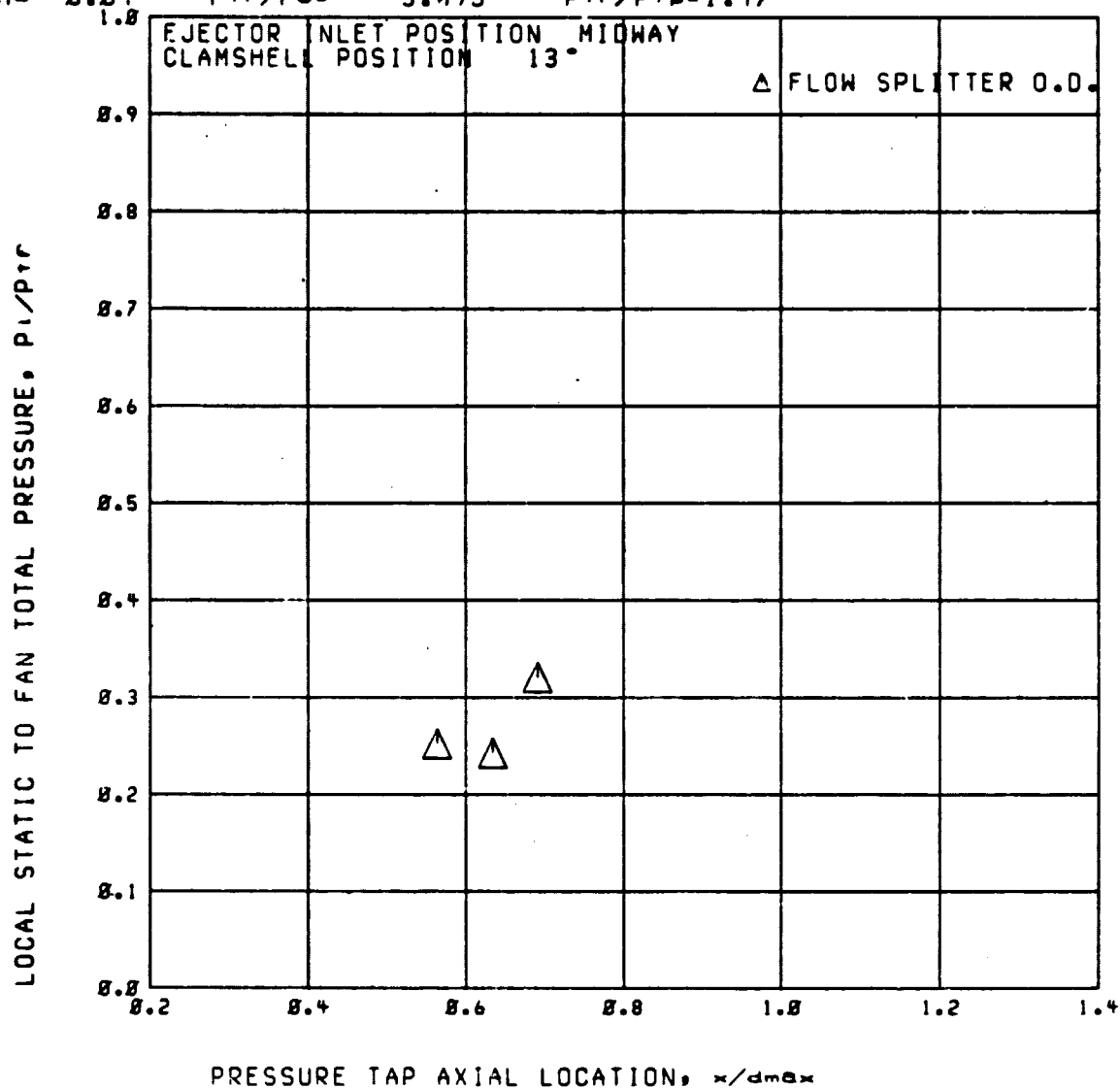
RUN 35

A33

RDG=1885

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.84$   $P_{ir}/P_0 = 3.895$   $P_{ir}/P_{ip} = 1.47$



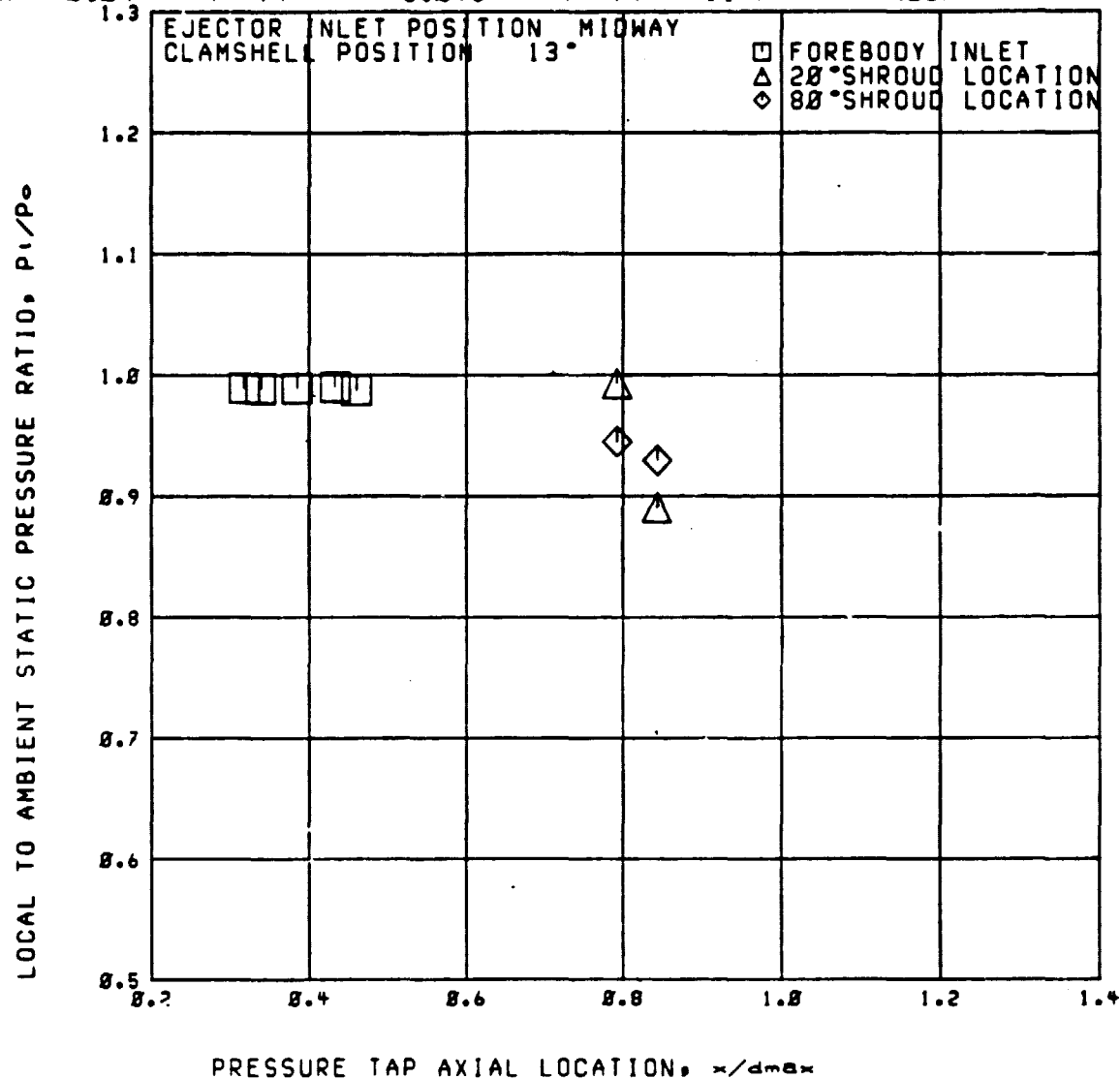
RUN 35

RDG=1885

A33

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.04$   $P_{1C}/P_0 = 3.895$   $P_{1C}/P_{1B} = 1.47$  AT TAKEOFF



Run 35

A33

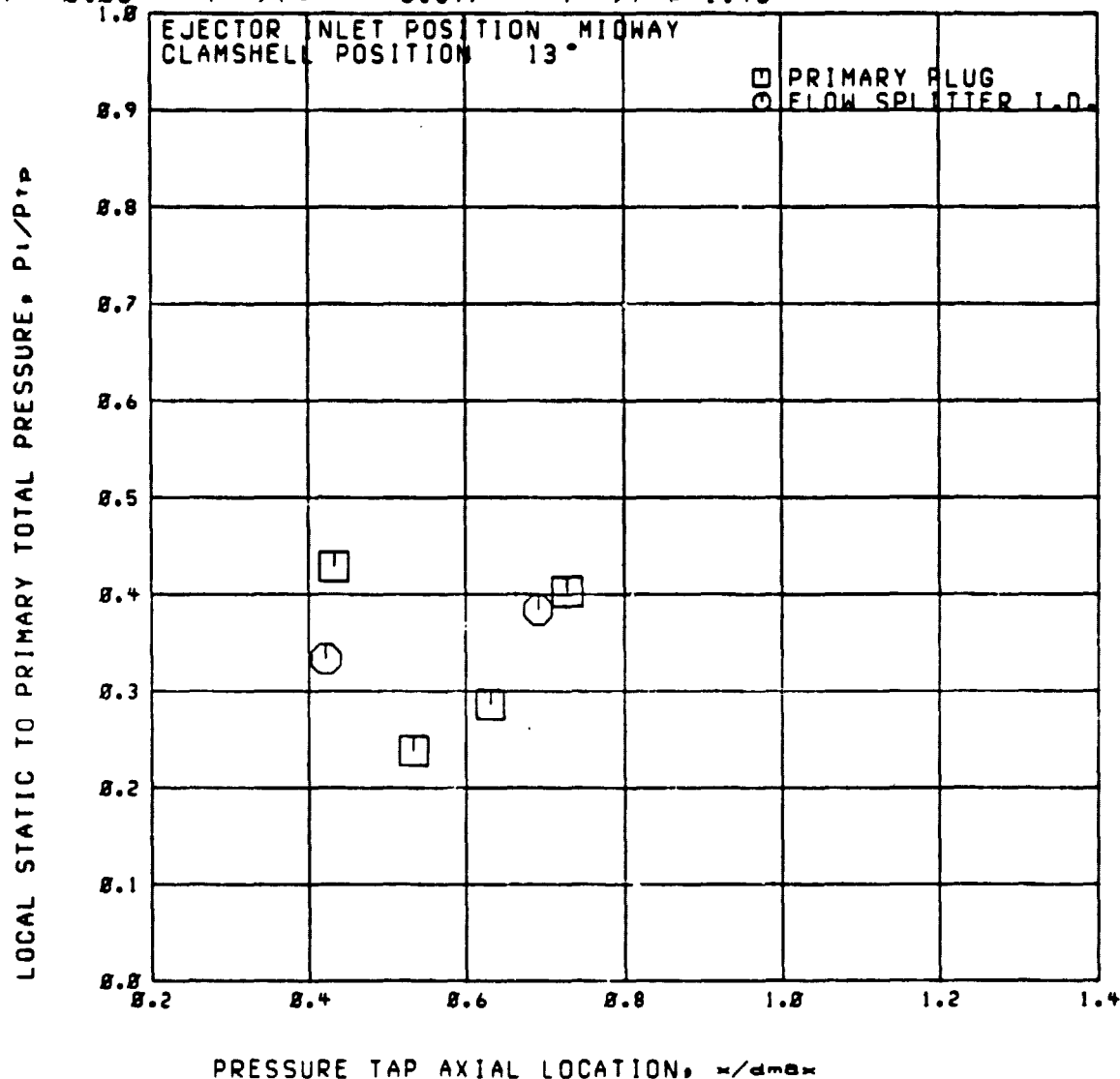
RDG=1886

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$

$P_{tr}/P_{os} = 3.597$

$P_{tr}/P_{tp} = 1.45$



RUN 35

RDG=1886

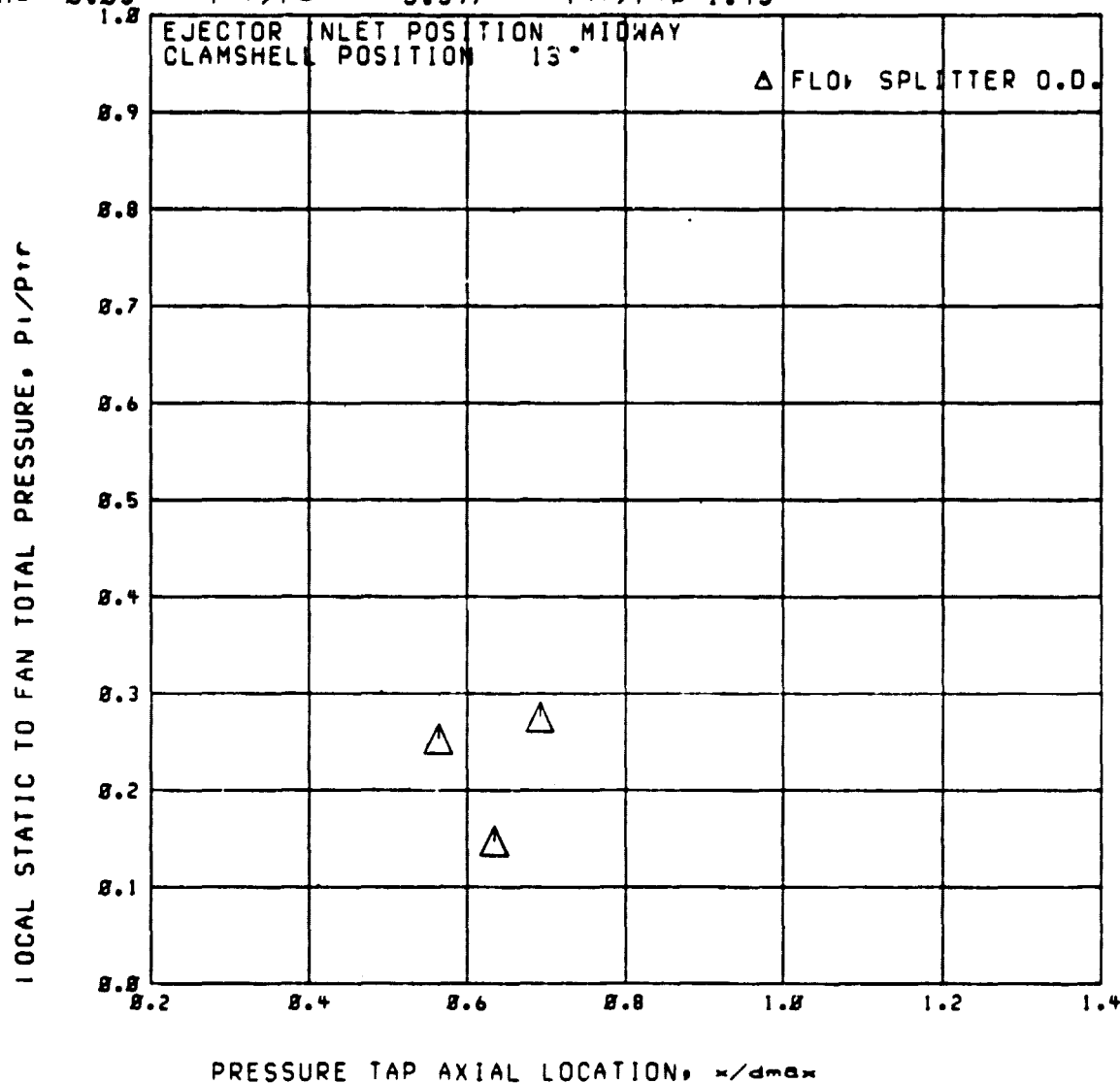
A33

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$

$P_{tr}/P_{00} = 3.597$

$P_{tr}/P_{tr0} = 1.45$





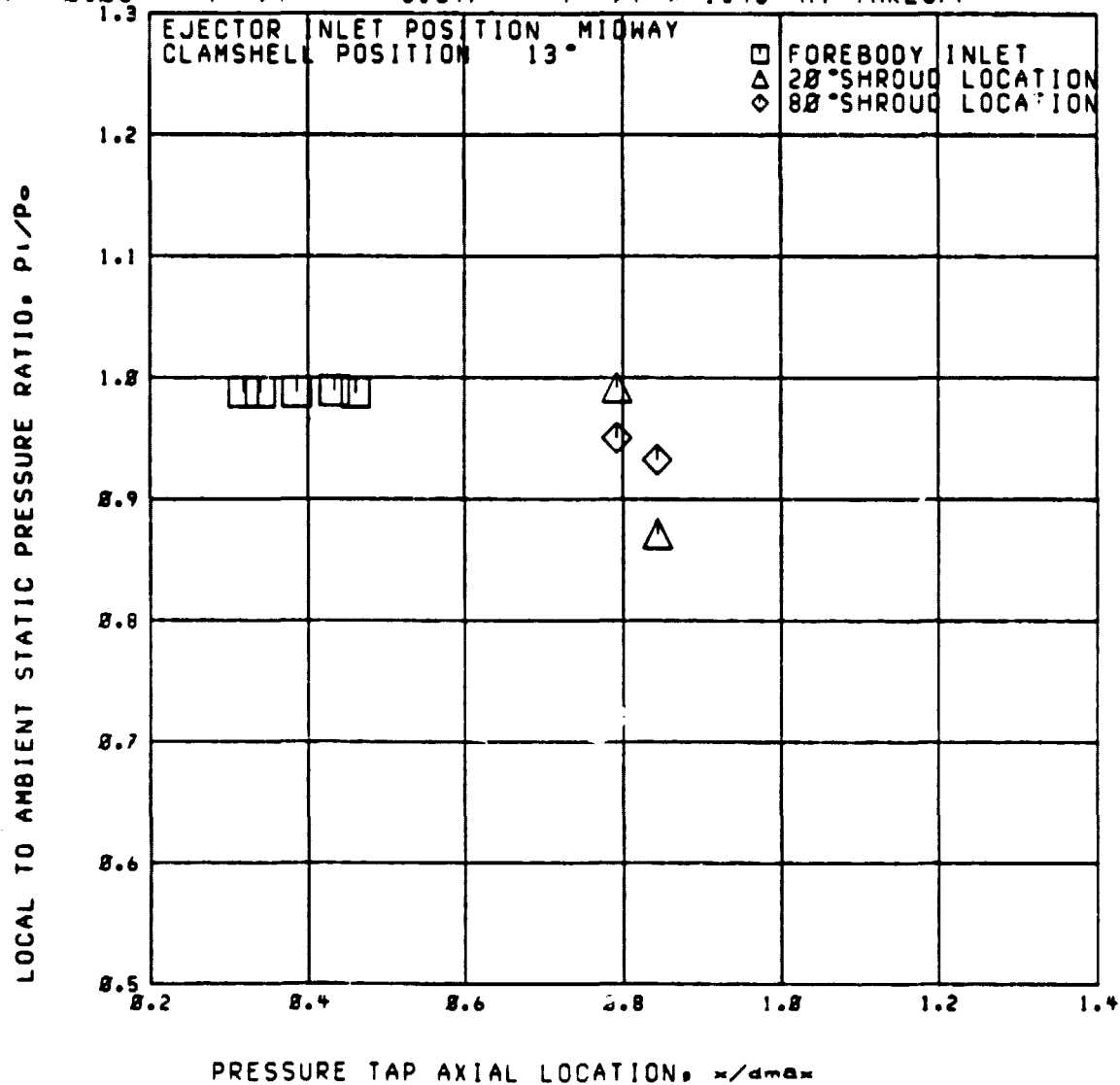
Run 35

A33

RDG=1886

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M = 0.85$   $P_{tr}/P_o = 3.597$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



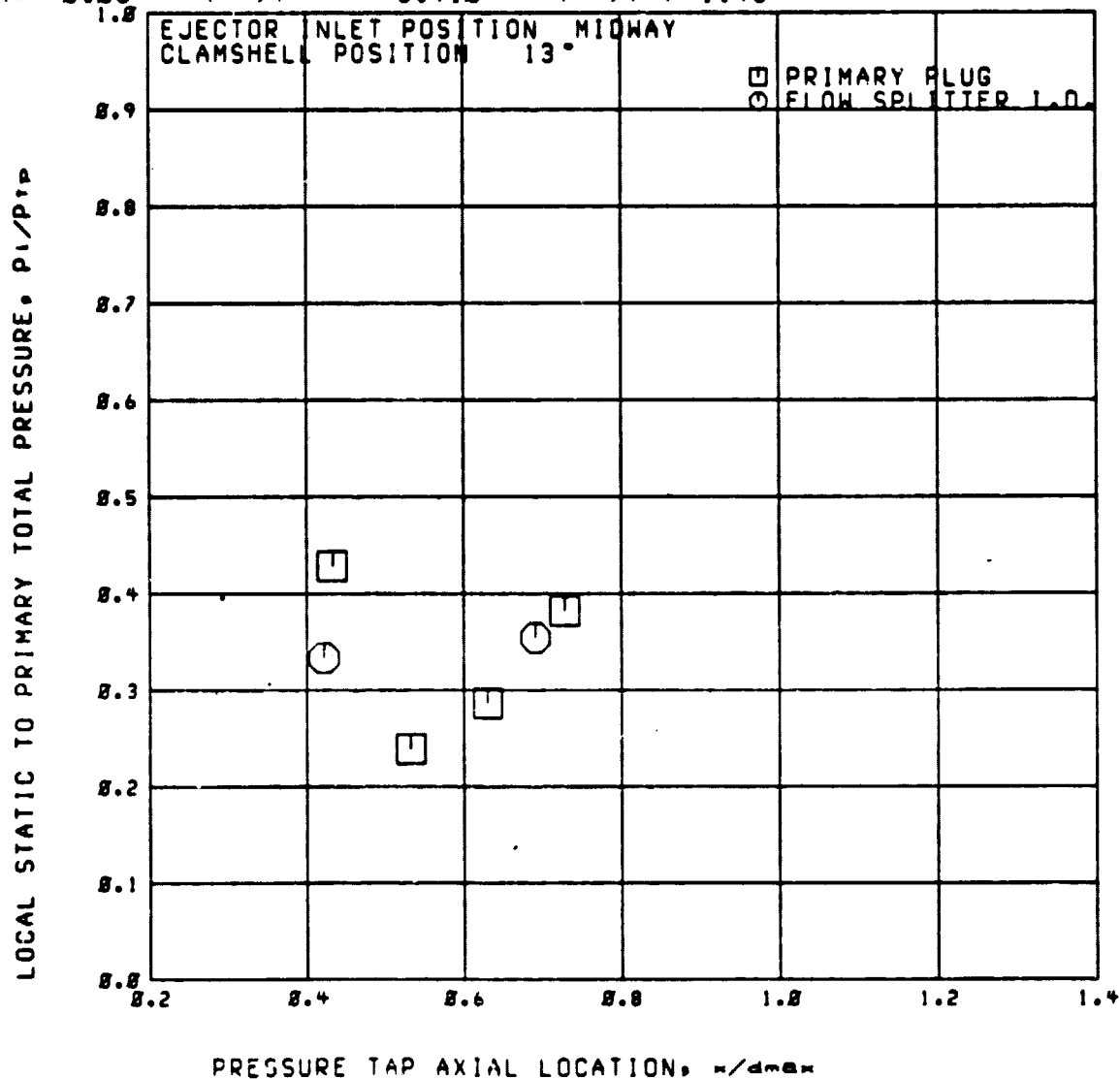
Run 35

A33

RDG=1887

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.86$   $P_{1c}/P_{0c} = 3.918$   $P_{1c}/P_{1p} = 1.45$



RUN 35

A33

RDG=1887

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

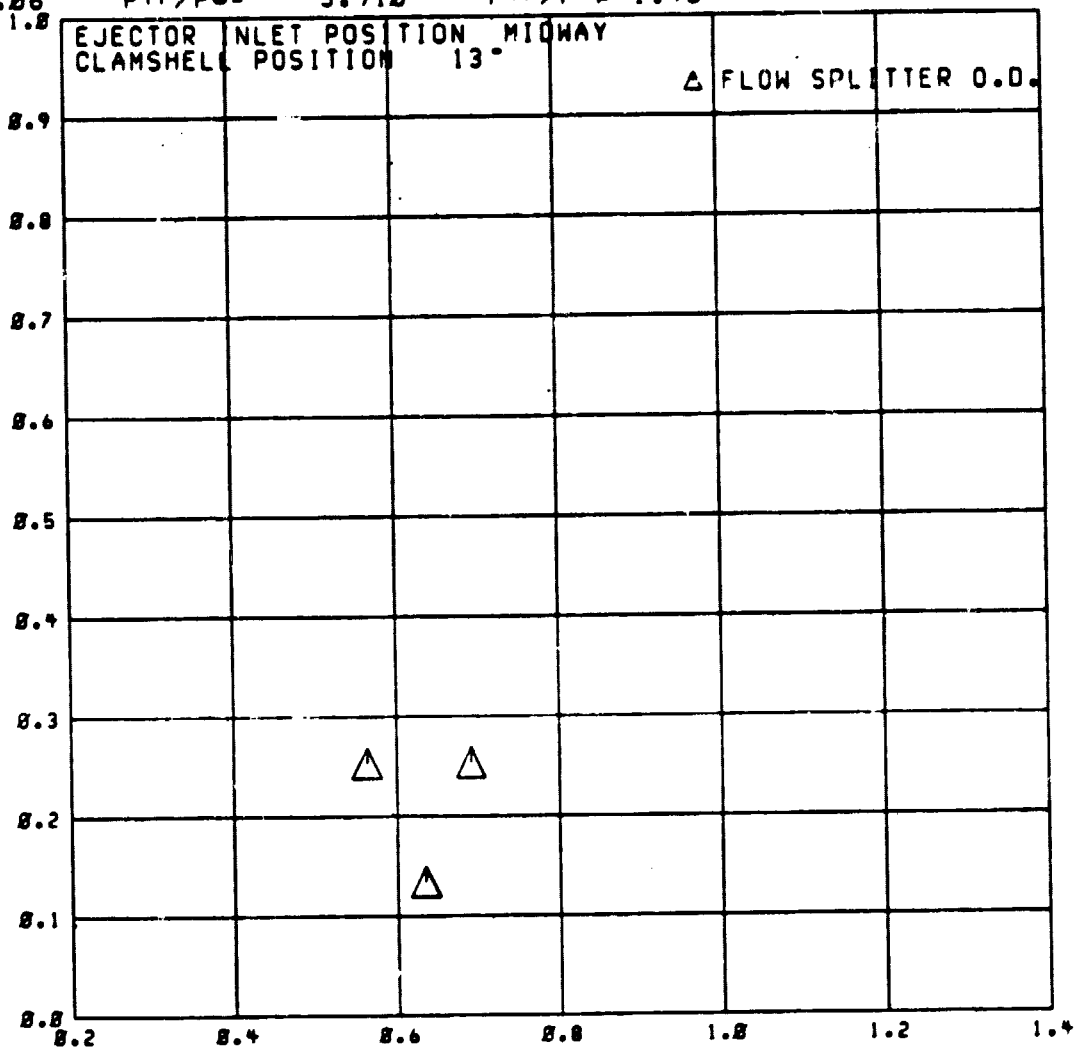
$M_0 = 0.86$

$P_{tr}/P_{00} =$

3.918

$P_{tr}/P_{tr0} = 1.45$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_1/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

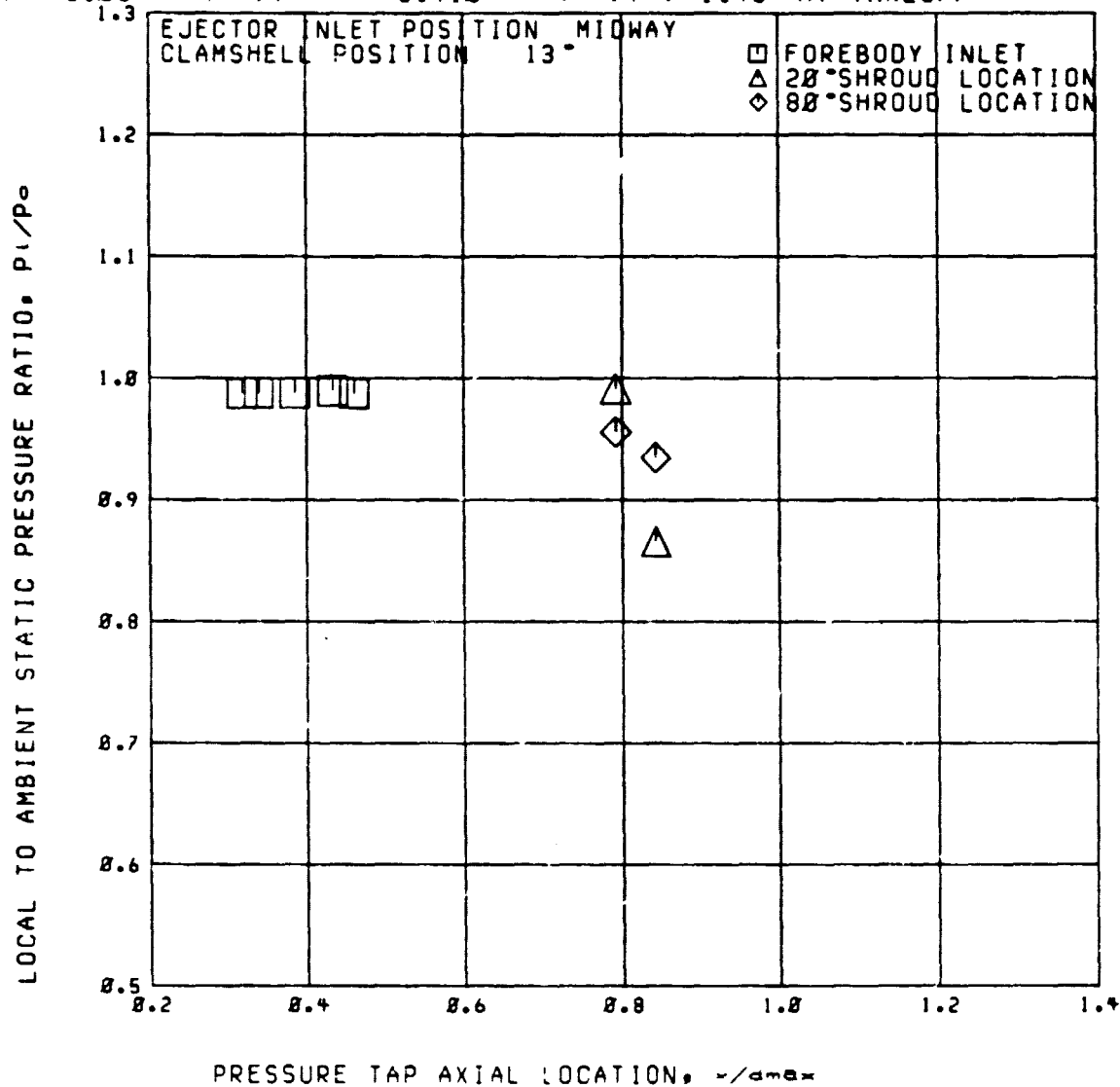
Run 35

A33

RDG=1887

EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.86$   $P_{tr}/P_o = 3.910$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



Run 35

RDG=1914

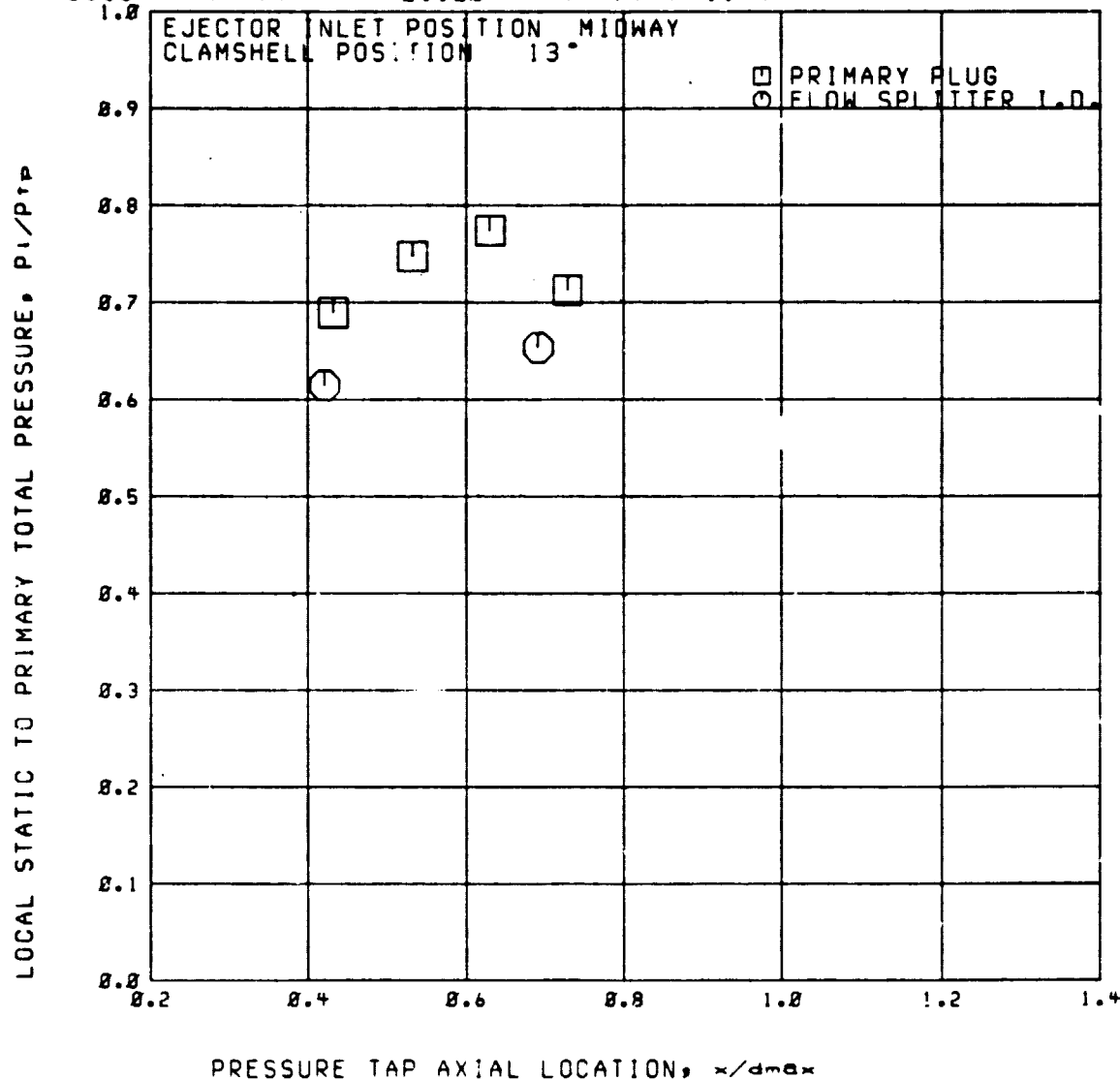
A33

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_{0e} = 2.128$

$P_{tr}/P_{tp} = 1.44$



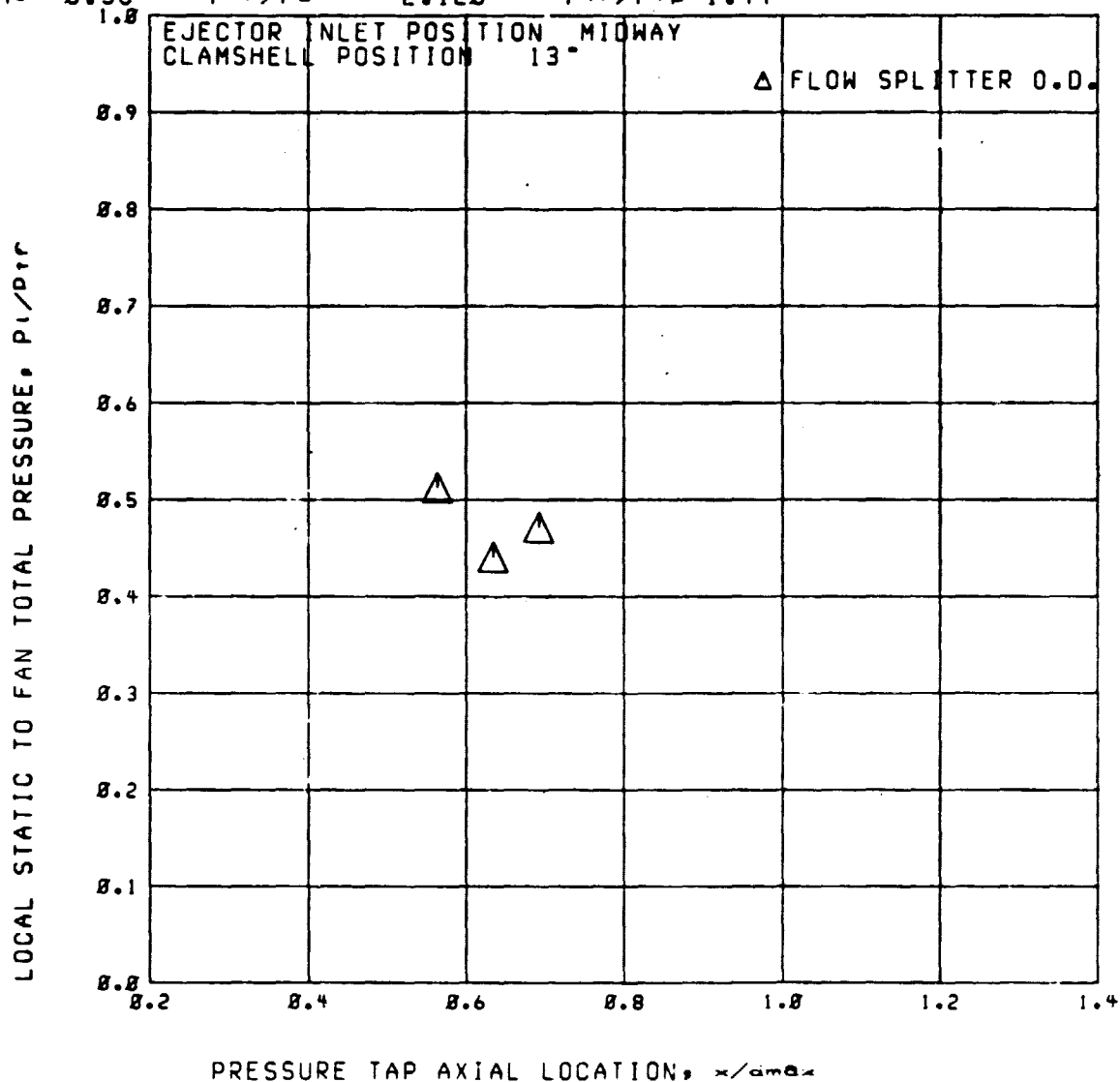
Run 35

A33

RDG=1914

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 2.128$   $P_{tr}/P_{tp} = 1.44$



RUN 35

RDG=1914

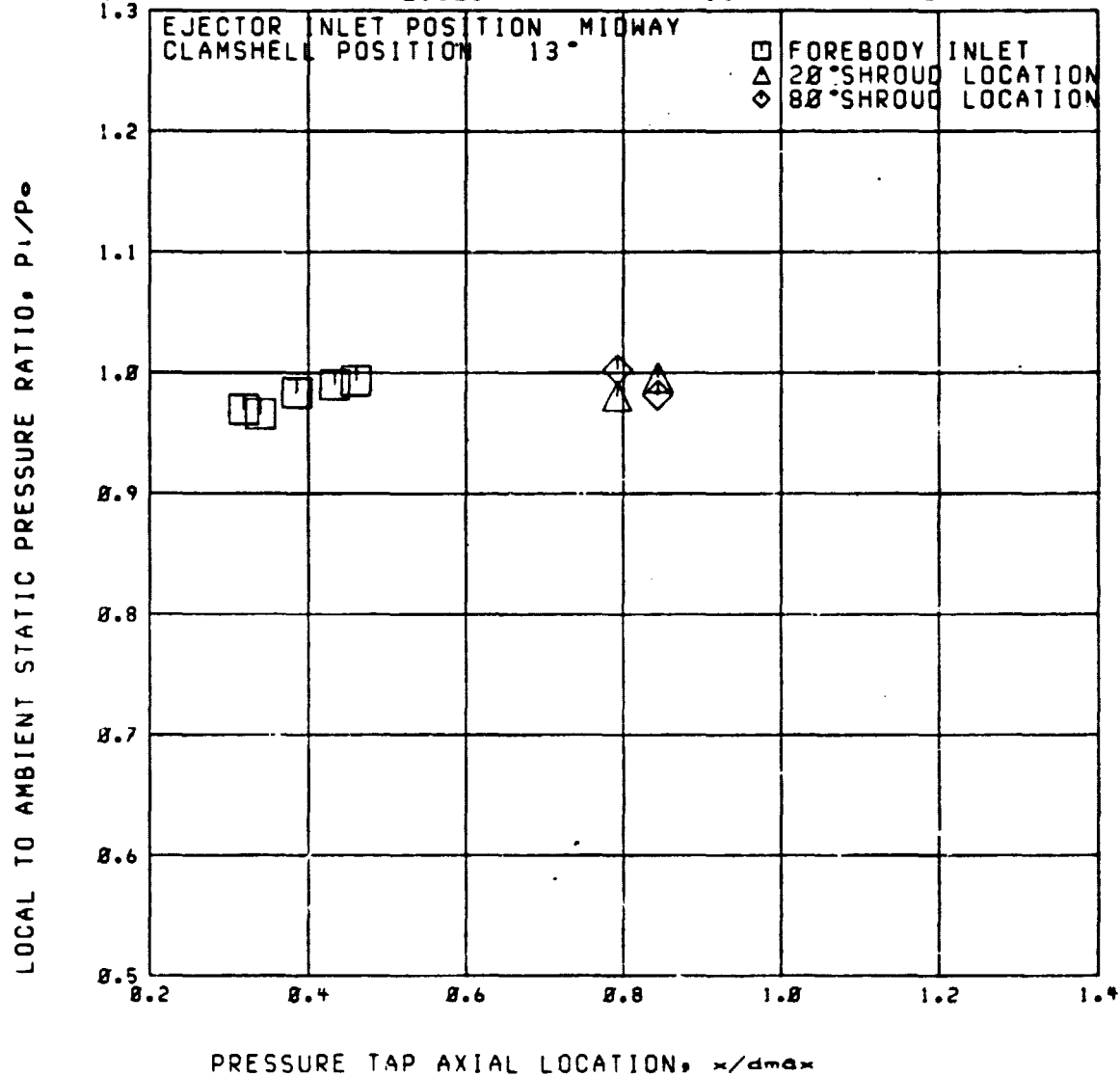
A33

EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$

$P_{tr}/P_0 = 2.120$

$P_{tr}/P_{tr} = 1.44$  AT TAKEOFF



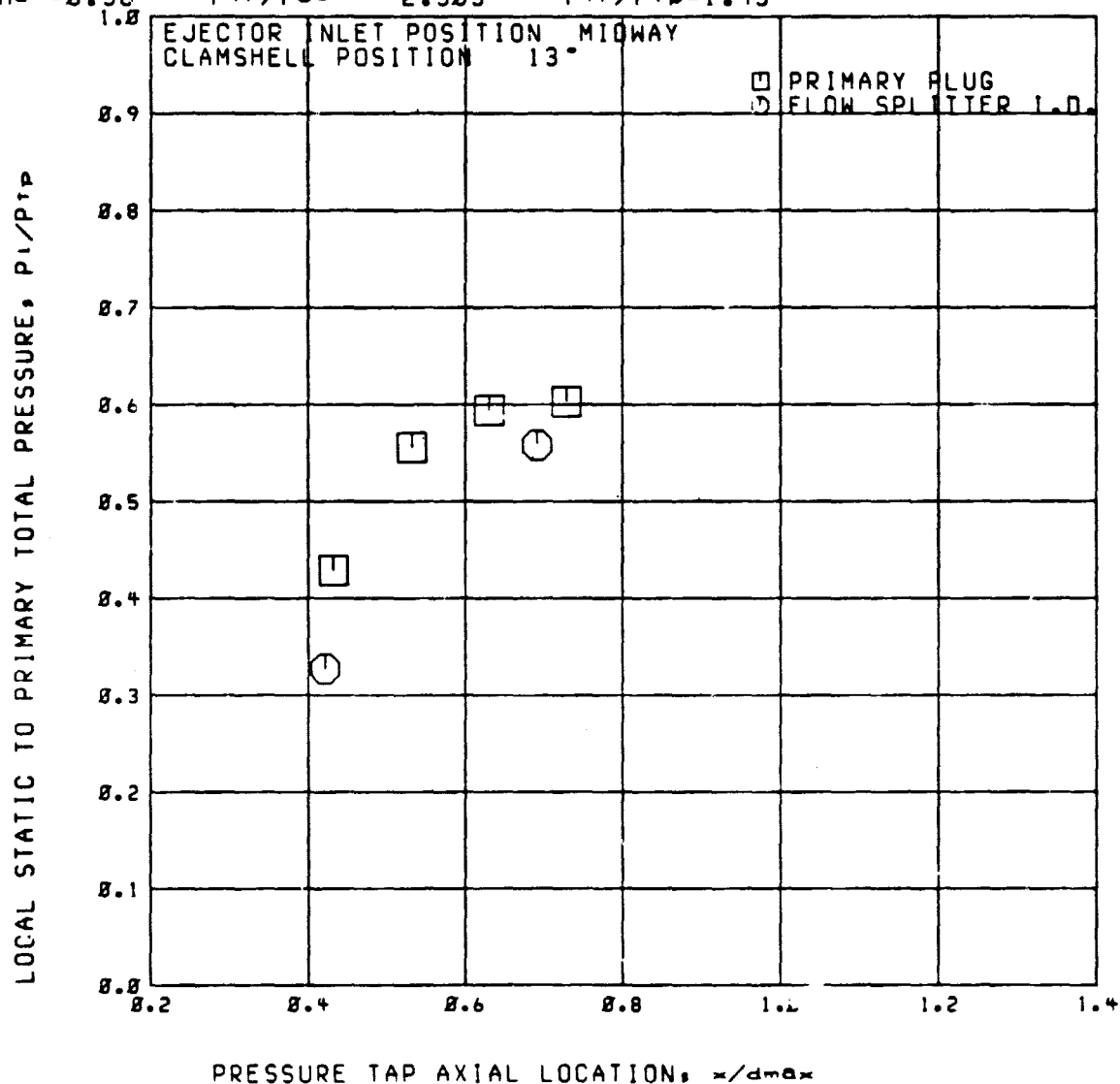
RUN 35

A33

RDG=1915

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

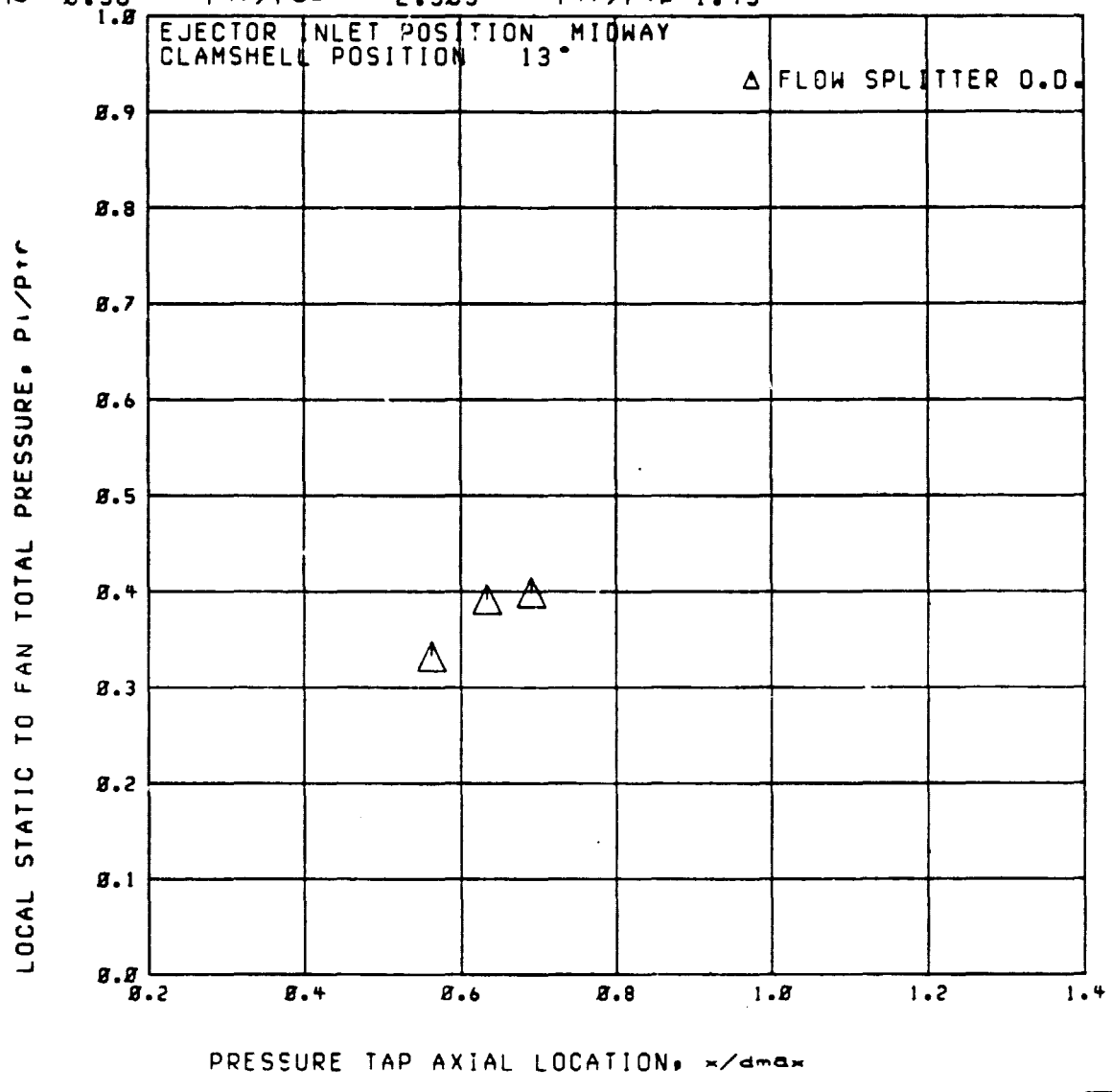
$M_o = 0.36$      $P_{tr}/P_o = 2.583$      $P_{tr}/P_{tp} = 1.45$





Run 35

A33  
 PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF  
 $M_o = 0.36$      $P_{tr}/P_o = 2.583$      $P_{tr}/P_{tp} = 1.45$     RDG=1915



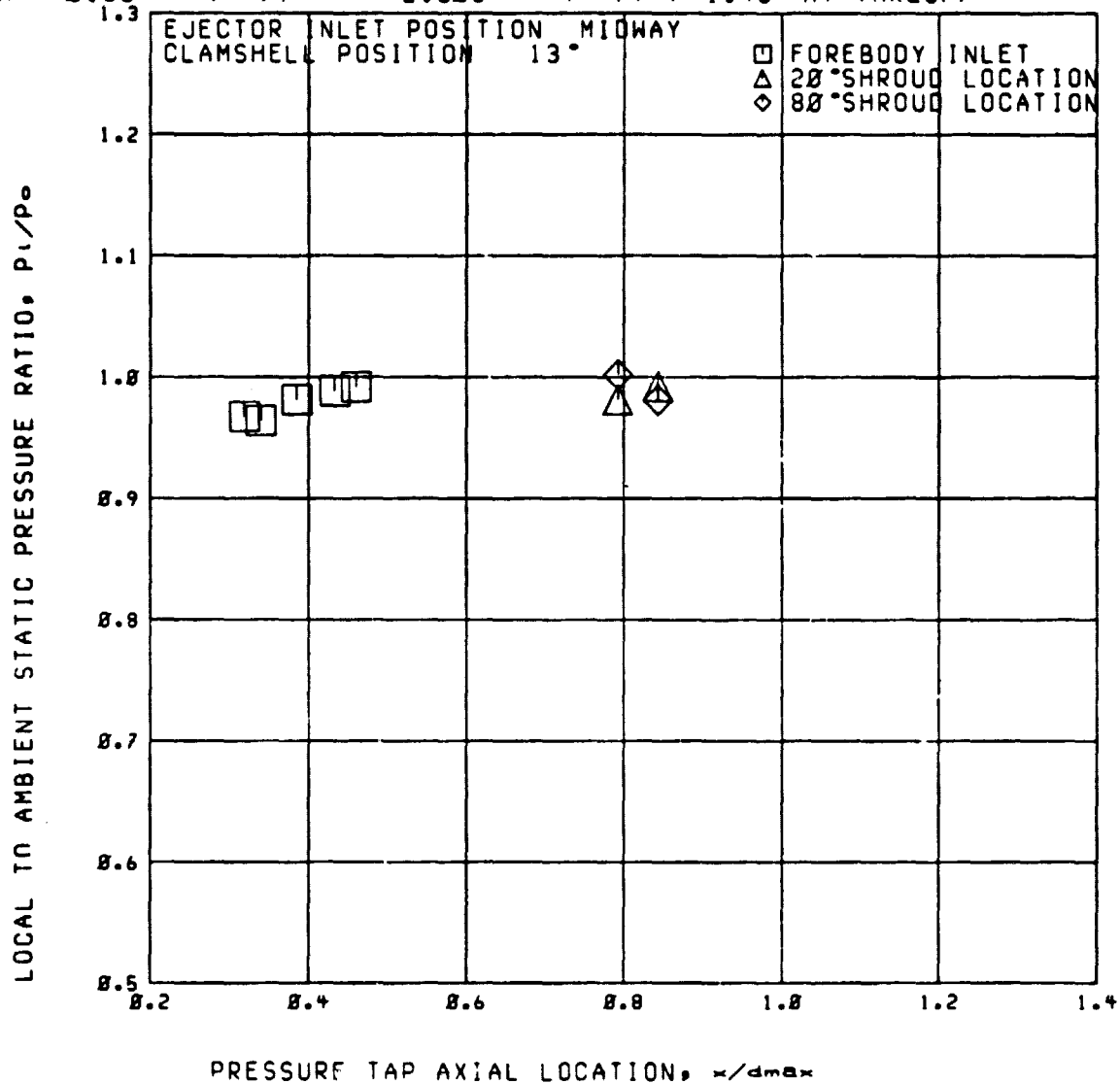
RUN 35

RDG=1915

A33

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 2.503$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



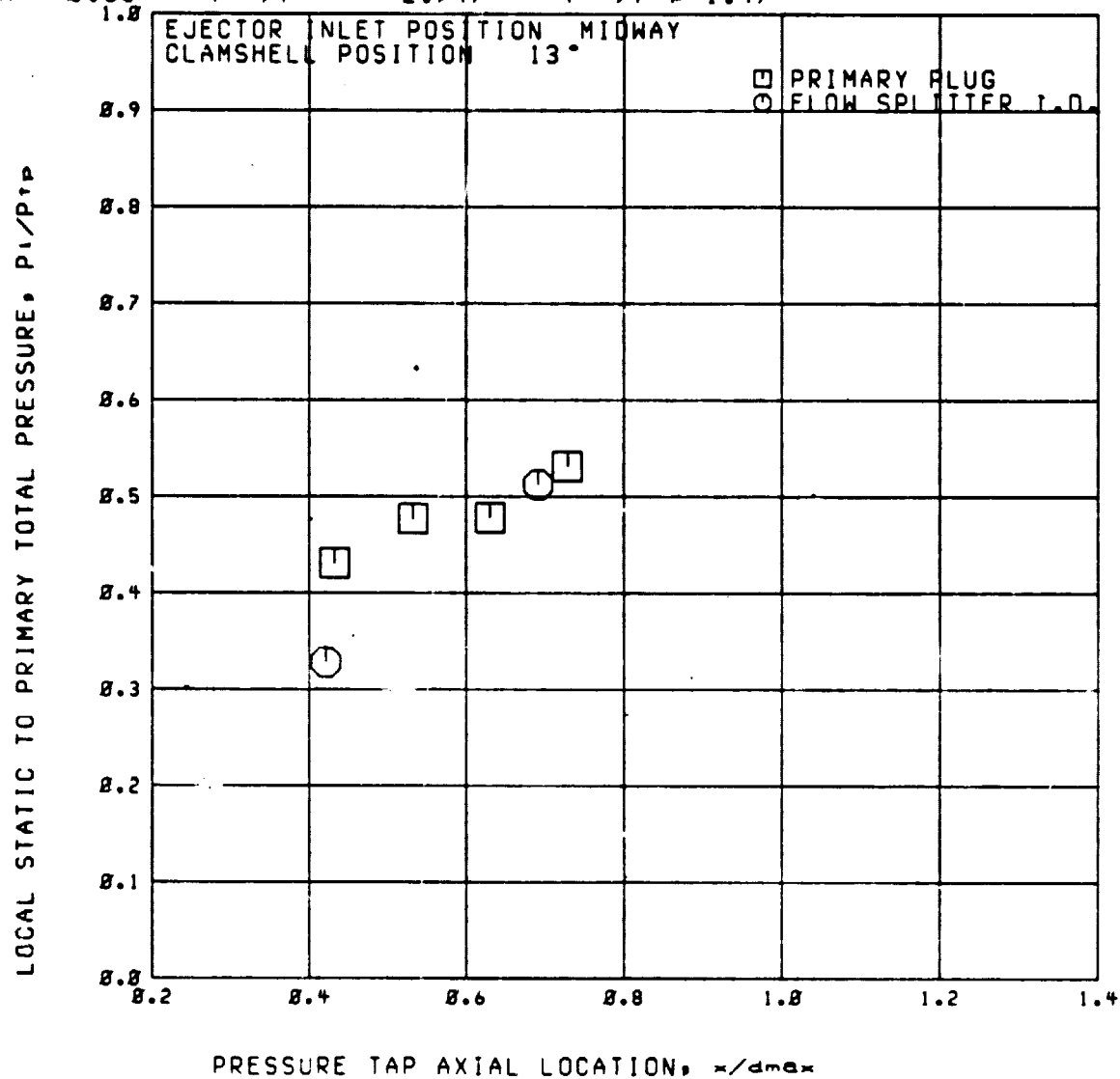
Run 35

A33

RDG=1916

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{ir}/P_0 = 2.747$   $P_{ir}/P_{rp} = 1.47$



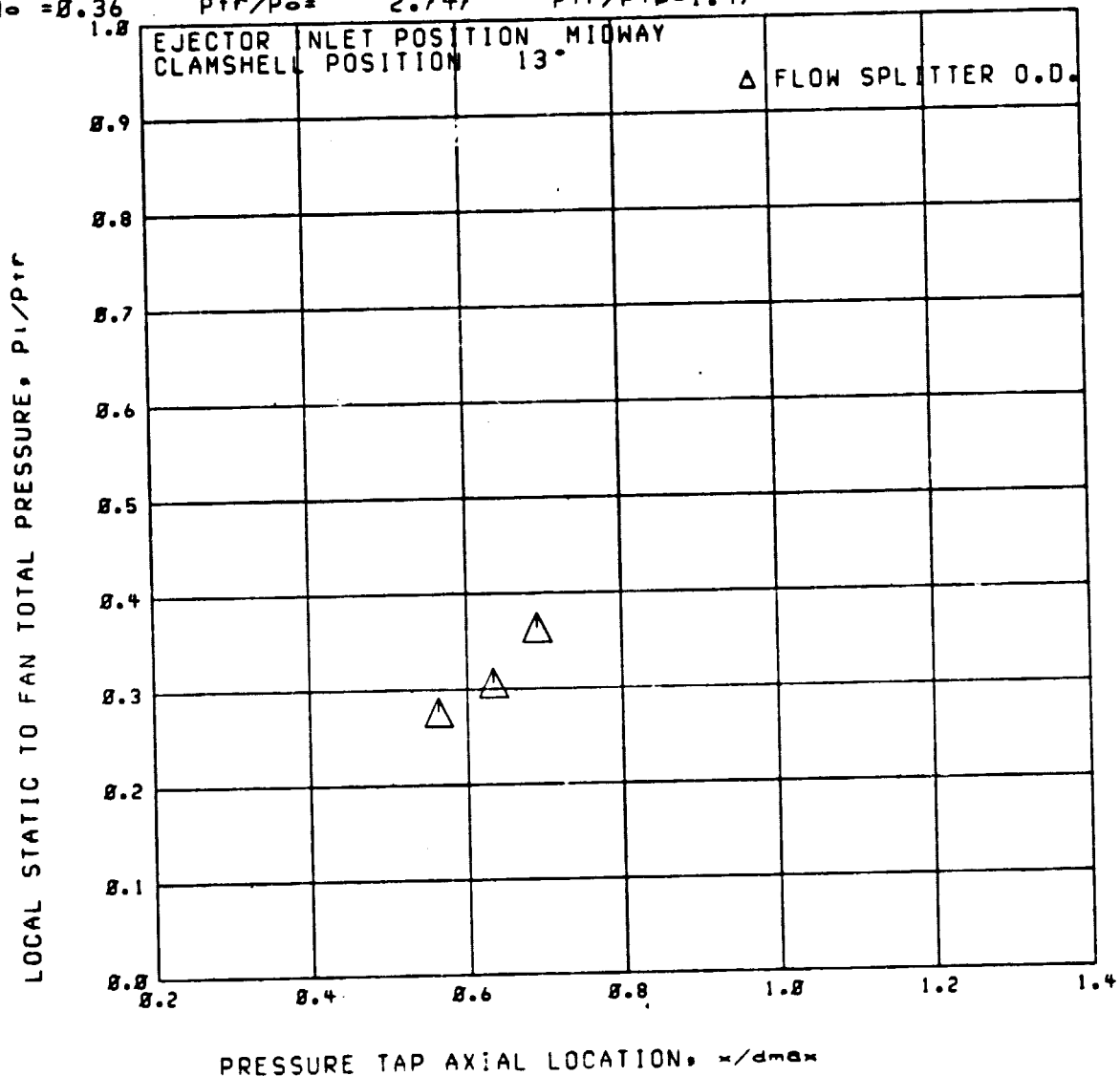
Run 35

RDG=1916

A33

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_{02} = 2.747$   $P_{tr}/P_{12} = 1.47$



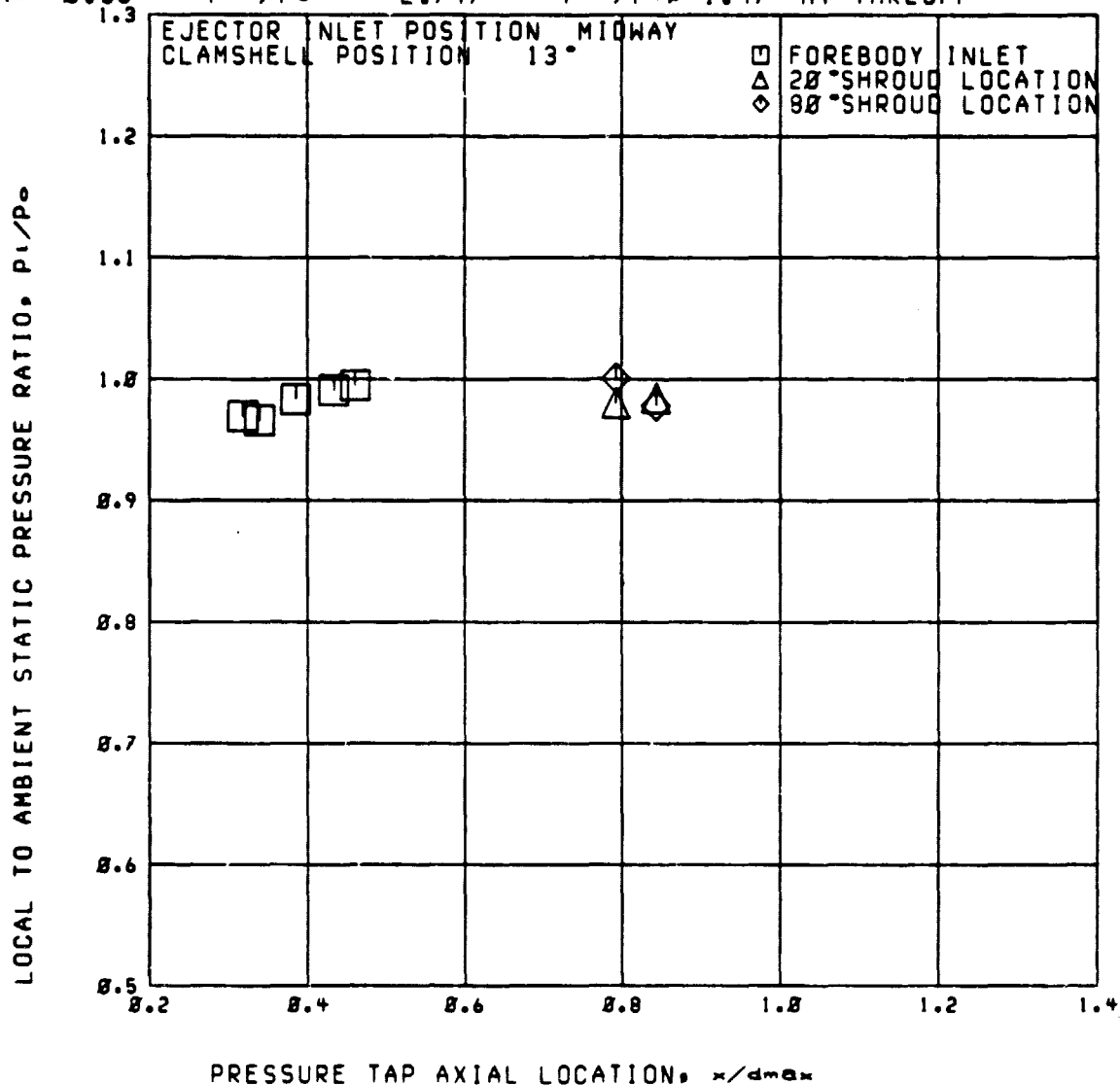
RUN 35

A33

RDG=1916

EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 2.747$   $P_{tr}/P_{tr} = 1.47$  AT TAKEOFF



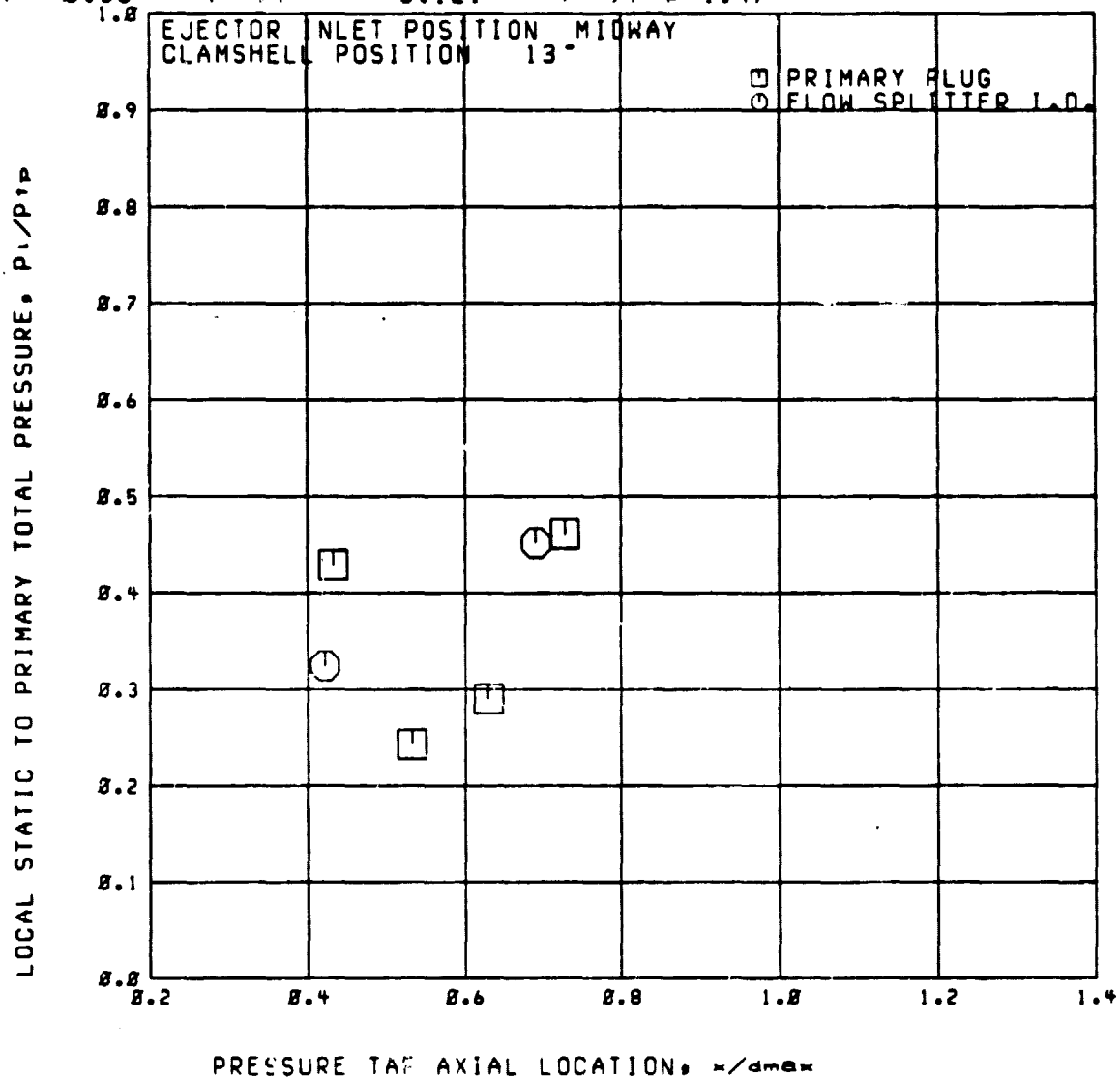
RUN 35

A33

RDG=1917

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_{0e} = 3.121$   $P_{tr}/P_{tp} = 1.47$



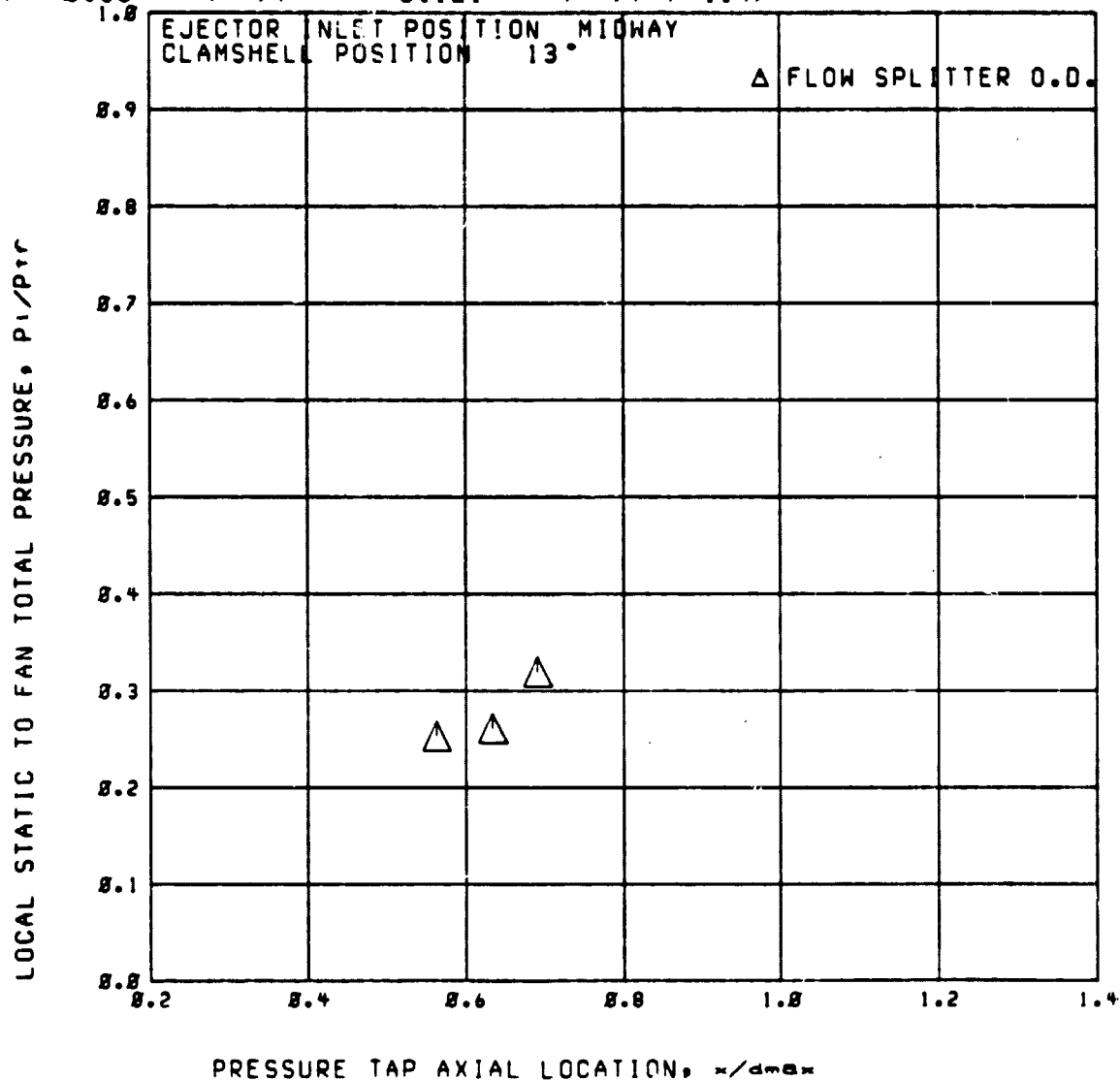
RUN 35

A33

RDG=1917

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$      $P_{tr}/P_o = 3.121$      $P_{tr}/P_{tr} = 1.47$



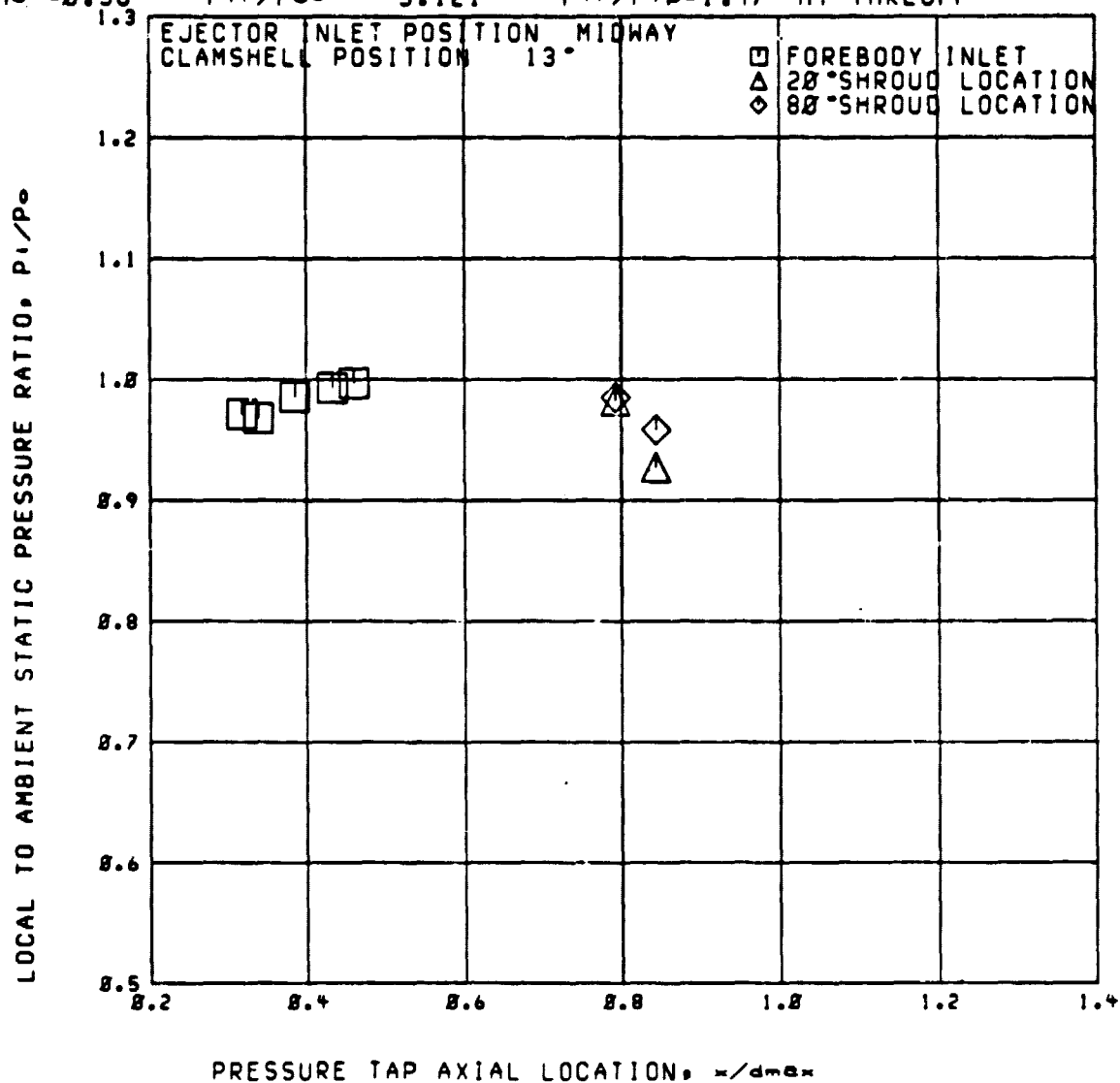
RUN 35

RDG=1917

A33

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_\infty = 0.36$   $P_{tr}/P_\infty = 3.121$   $P_{tr}/P_{trp} = 1.47$  AT TAKEOFF





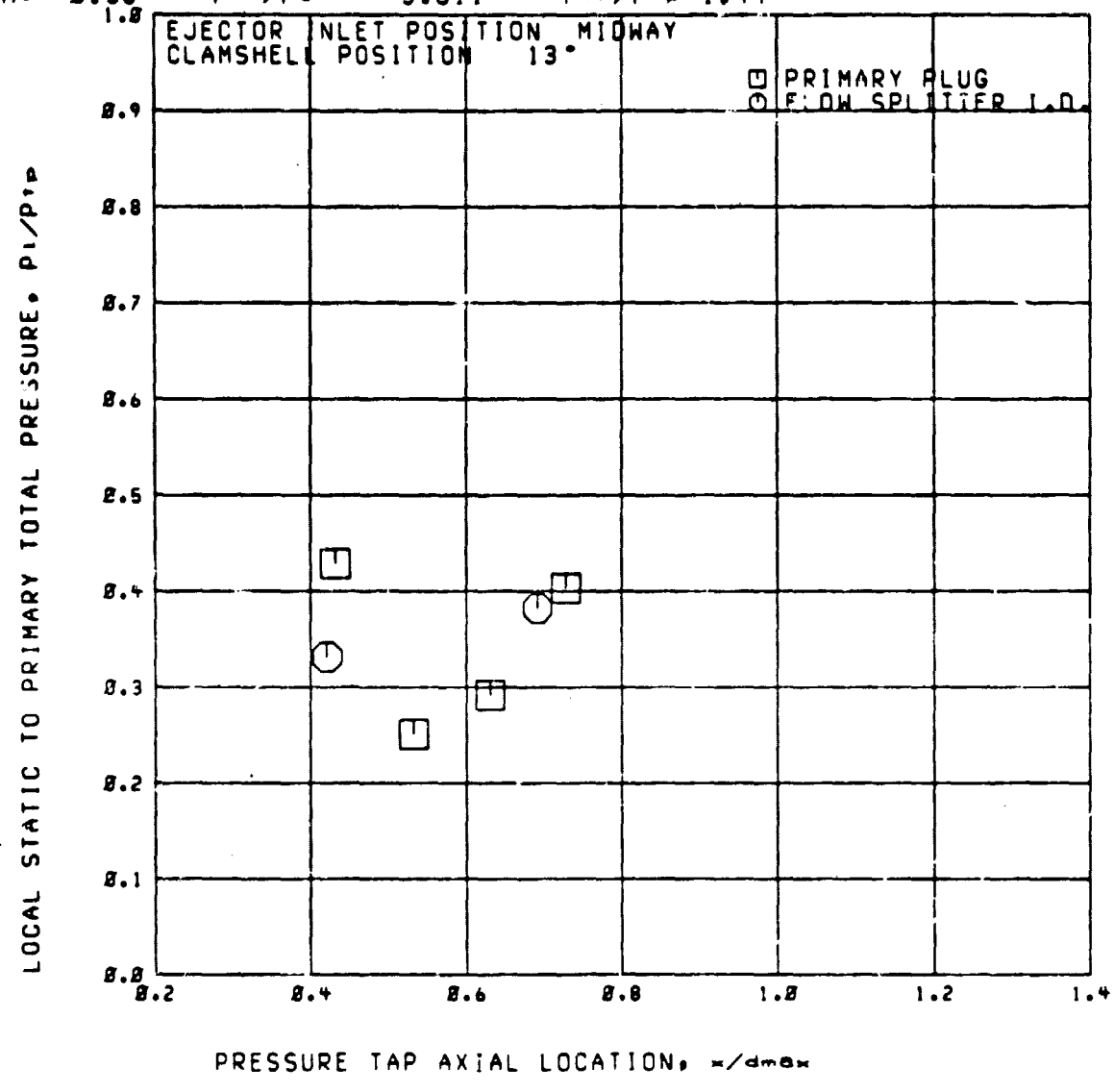
Run 35

A33

RDG=1918

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$        $P_{ir}/P_{0r} = 3.611$        $P_{ir}/P_{ip} = 1.44$



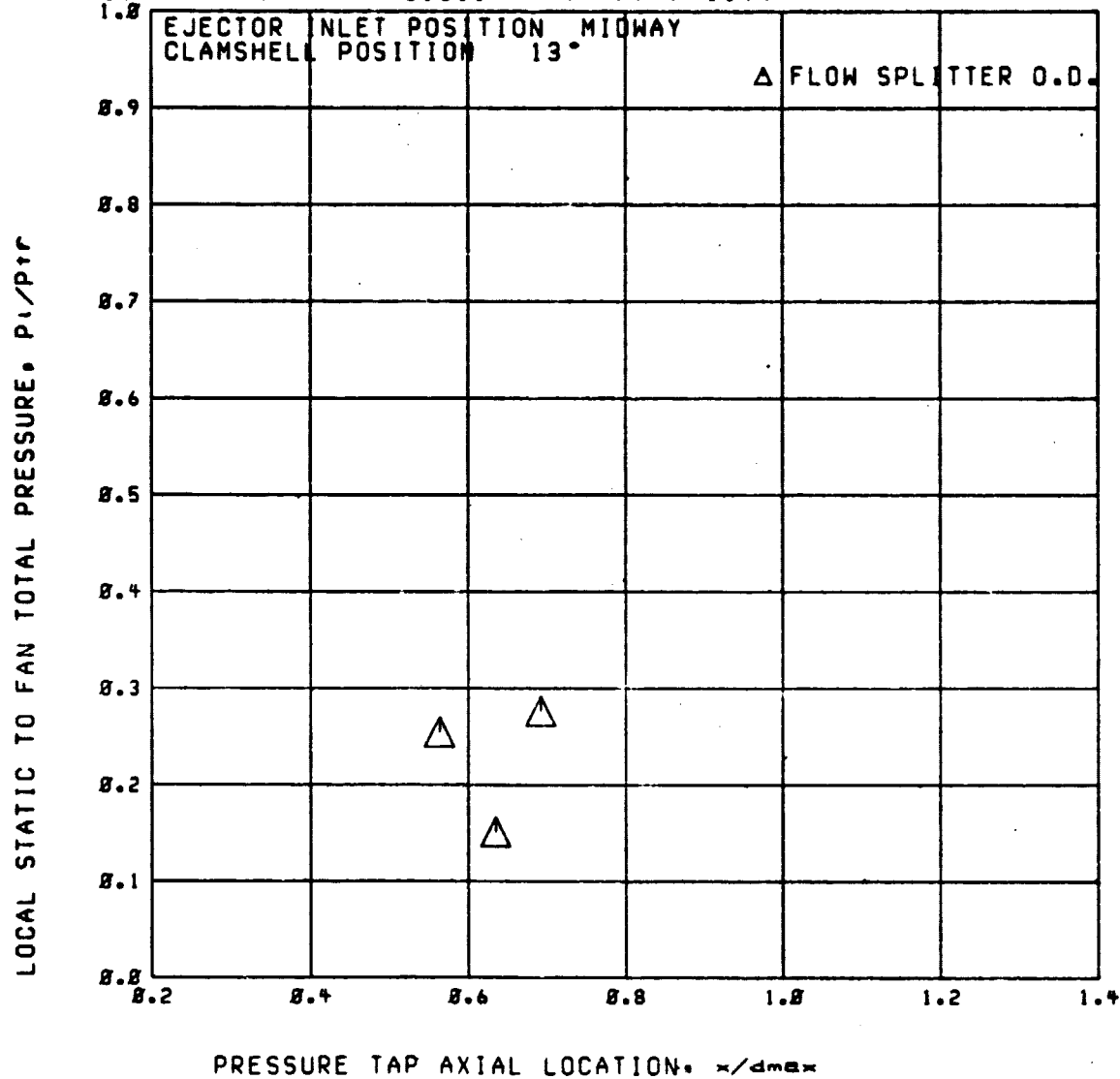
Run 35

RDG=1918

A33

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 3.36$   $P_{tr}/P_0 = 3.611$   $P_{tr}/P_{tp} = 1.44$



C-5

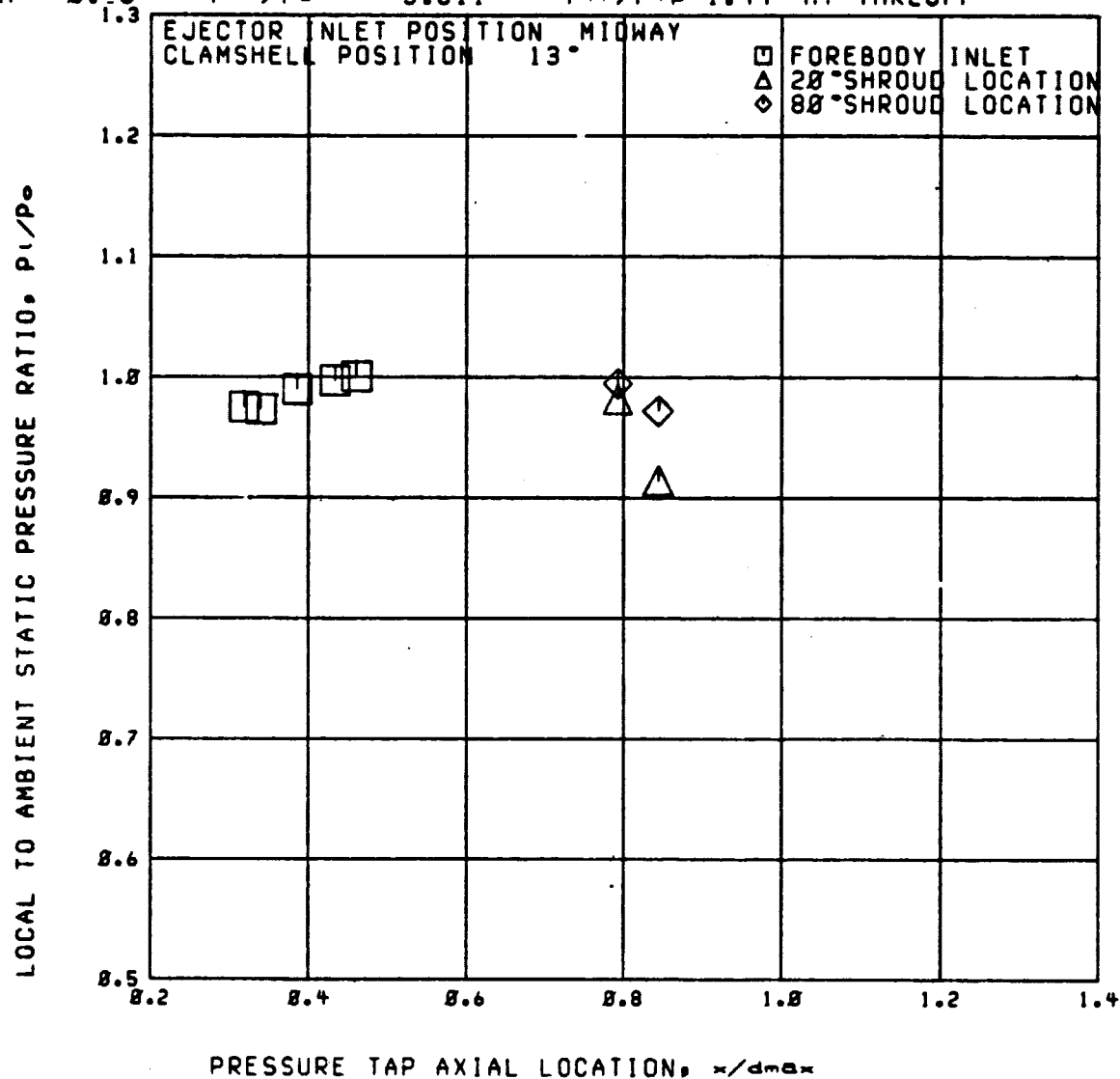
Run 35

RDG=1918

A33

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$   $P_{tr}/P_0 = 3.611$   $P_{tr}/P_{tp} = 1.44$  AT TAKEOFF



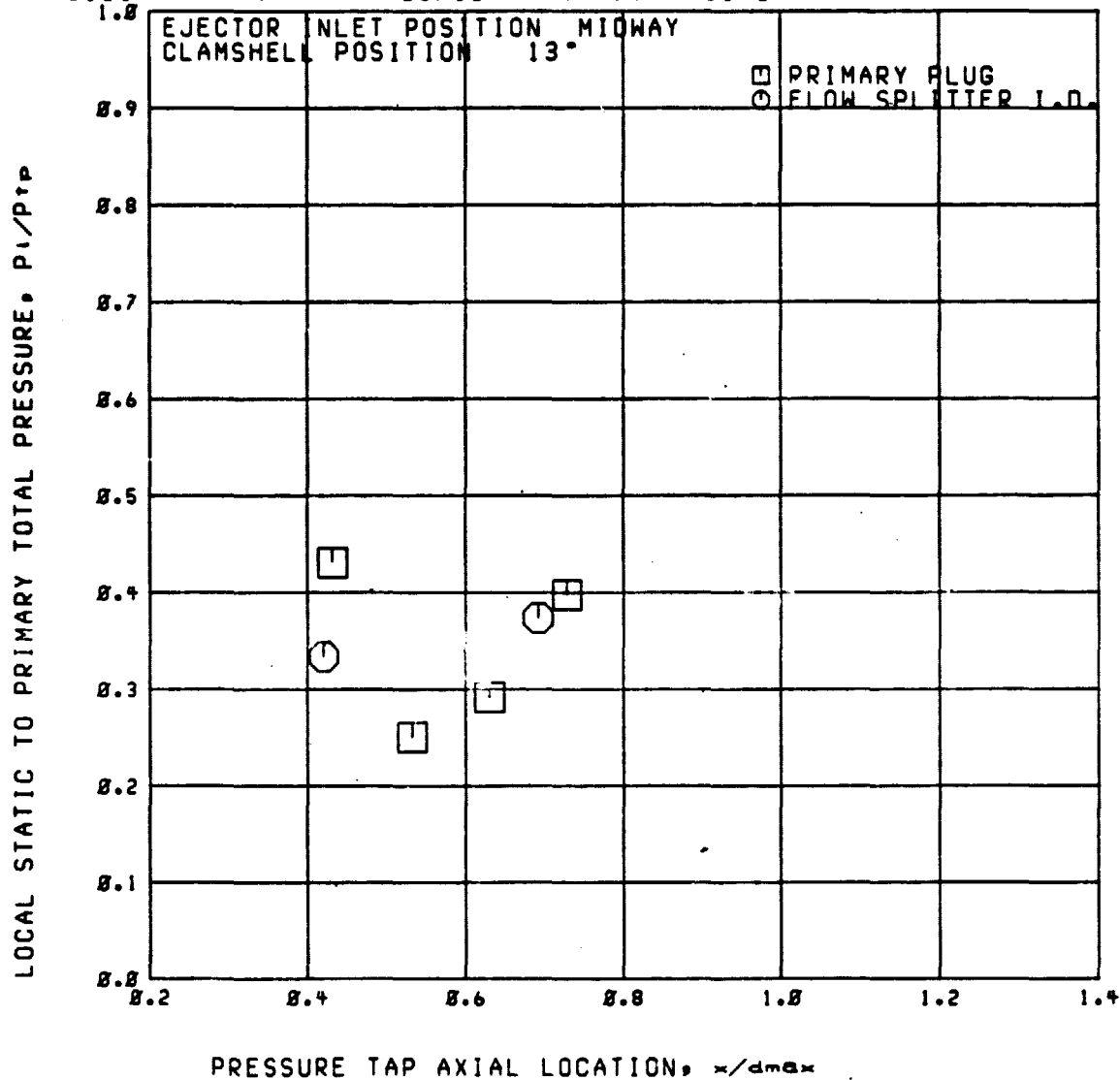
Run 35

A33

RDG=1919

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 3.713$   $P_{tr}/P_{tr} = 1.45$



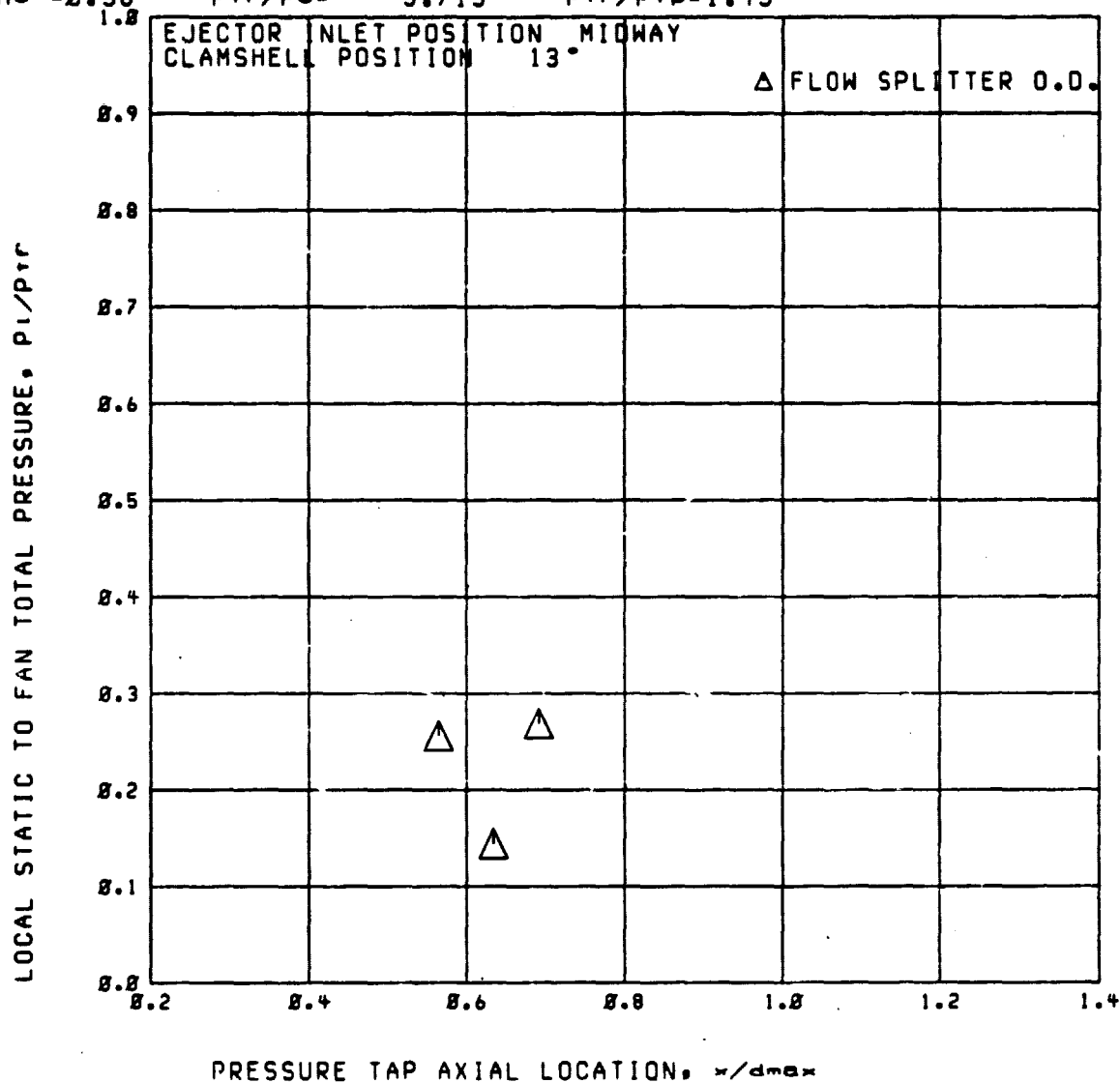
RUN 35

A33

ROG=1919

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 3.713$   $P_{tr}/P_{tp} = 1.45$



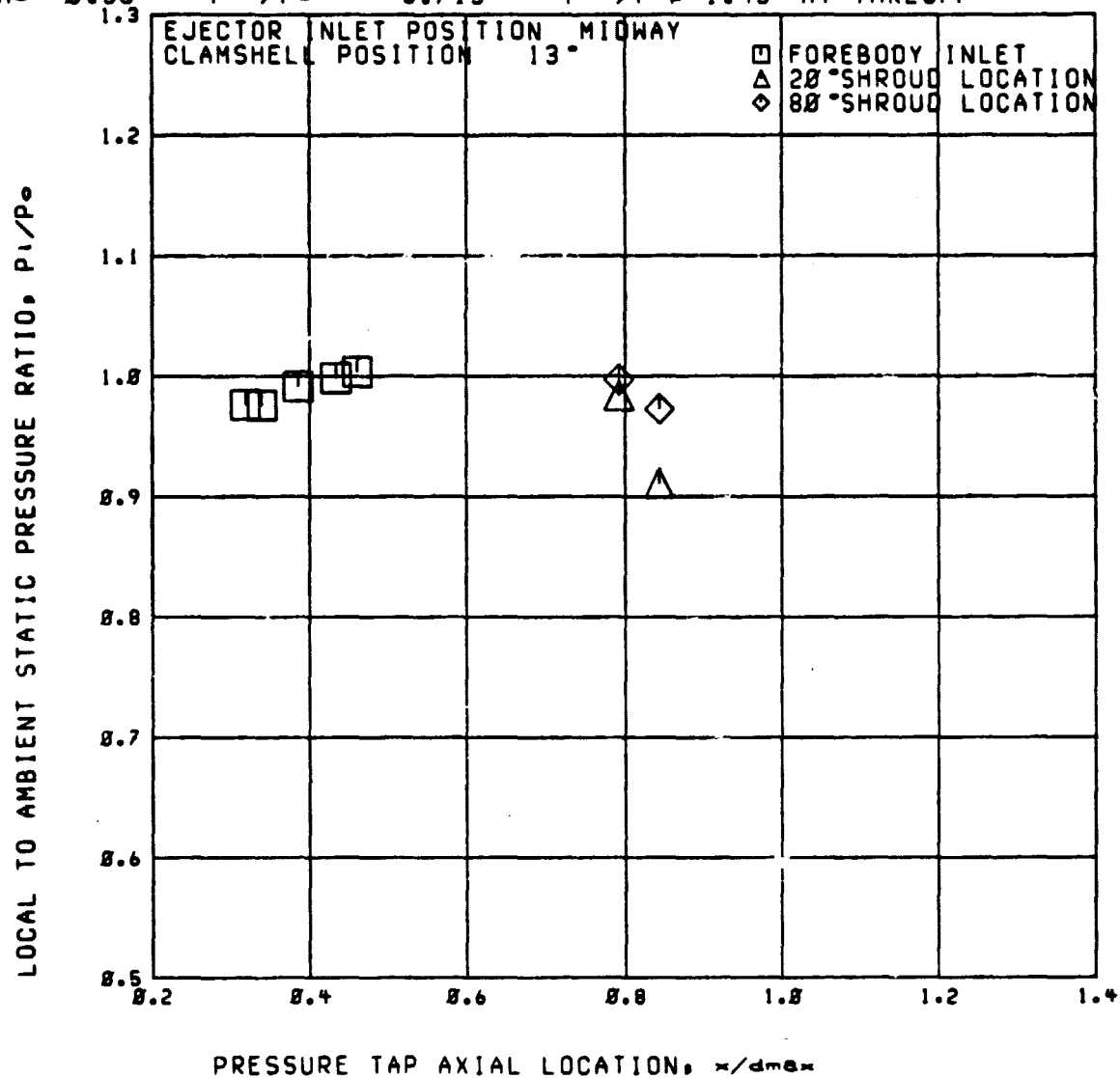
RUN 35

RDG=1919

A33

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$   $P_{tr}/P_{0e} = 3.713$   $P_{tr}/P_{1e} = 1.45$  AT TAKEOFF

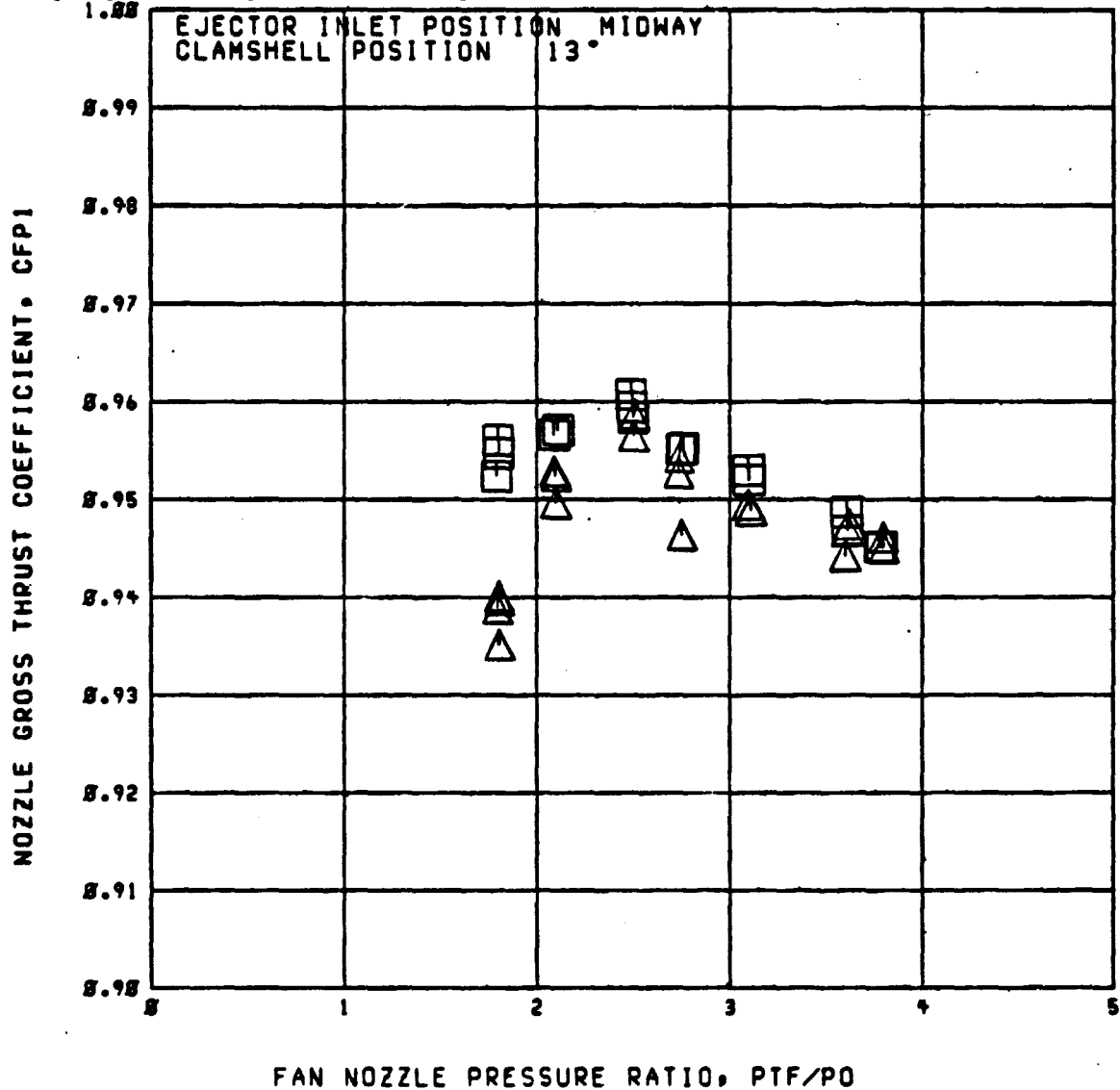


RDG. 1940-1975

A3  
TAKEOFF

$P_{1c}/P_{1e} = \square = 1.46$   
 $\Delta = 1.78$

RUN 37  $M_0 = 0.36$   $M_e = 0.36$



FOR QUALITY

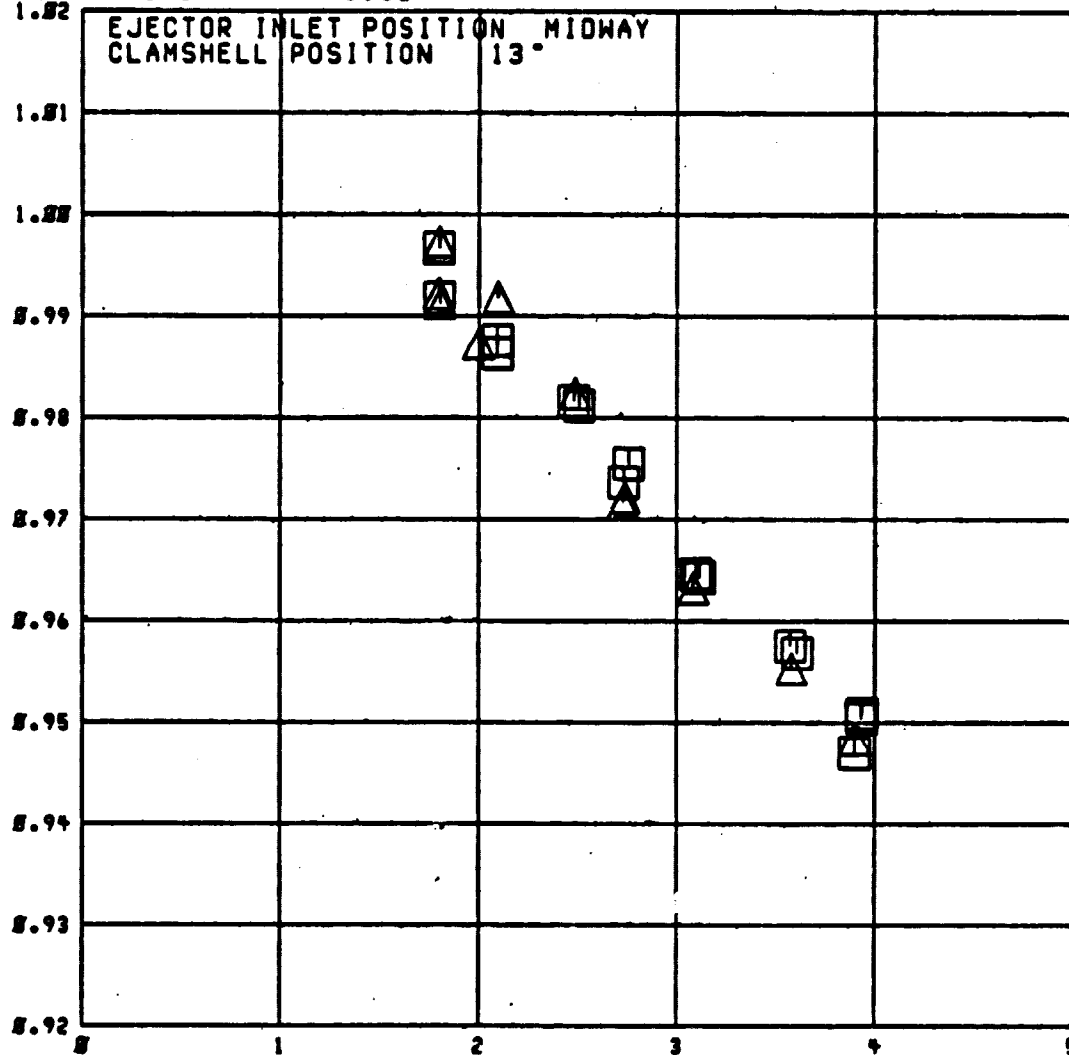
RDG. 1976-2000

A3  
TAKEOFF

$P_{1F}/P_{1B} = \square = 1.46$   
 $\Delta = 1.78$

RUN 37  $M_0 = 8$   $M = 8.82$

NOZZLE GROSS THRUST COEFFICIENT, CFP1



FAN NOZZLE PRESSURE RATIO, PTF/PO

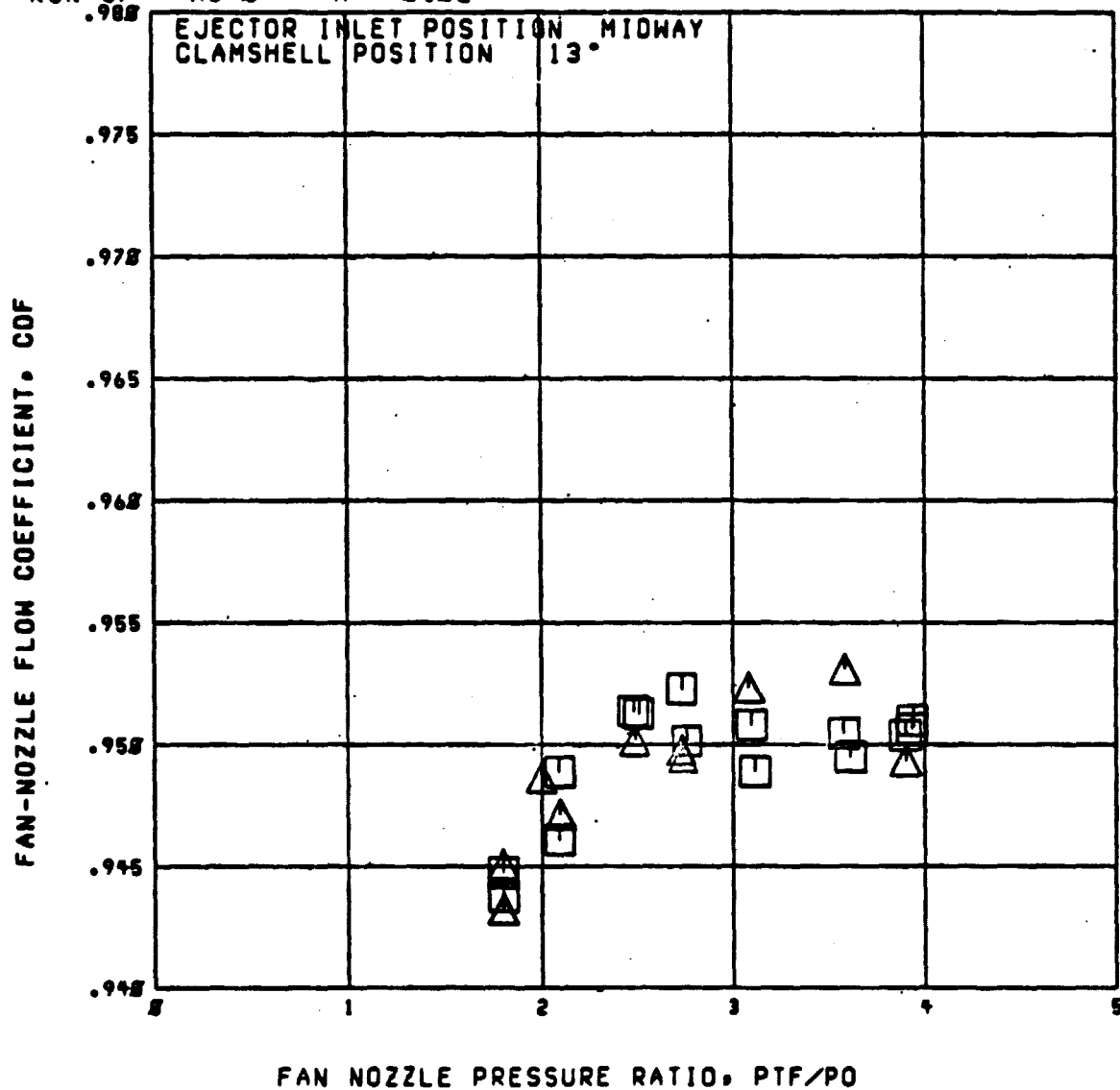


ROG. 1976-2000

A3  
TAKEOFF

RUN 37  $M_0 = 8$   $M = 8.82$

$P_{t0}/P_{t\infty} = \square = 1.46$   
 $\Delta = 1.78$



ROG. 1940-1975

A3

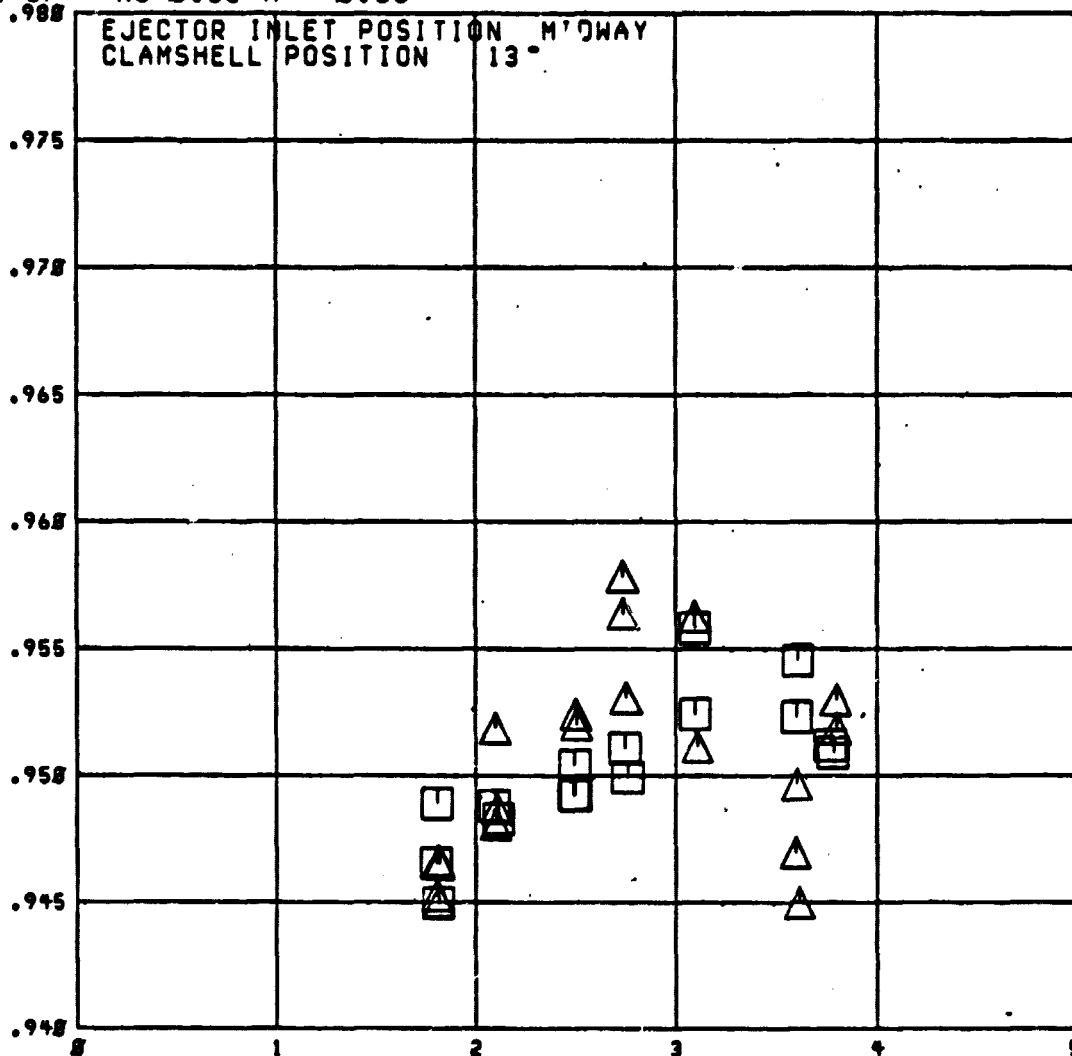
TAKEOFF

RUN 37

M0=8.36 M=8.36

$P_{tr}/P_{td} = \square = 1.46$   
 $\Delta = 1.78$

FAN-NOZZLE FLOW COEFFICIENT, CDF



FAN NOZZLE PRESSURE RATIO, PTF/PO

RDG. 1976-2000

A3  
TAKEOFF

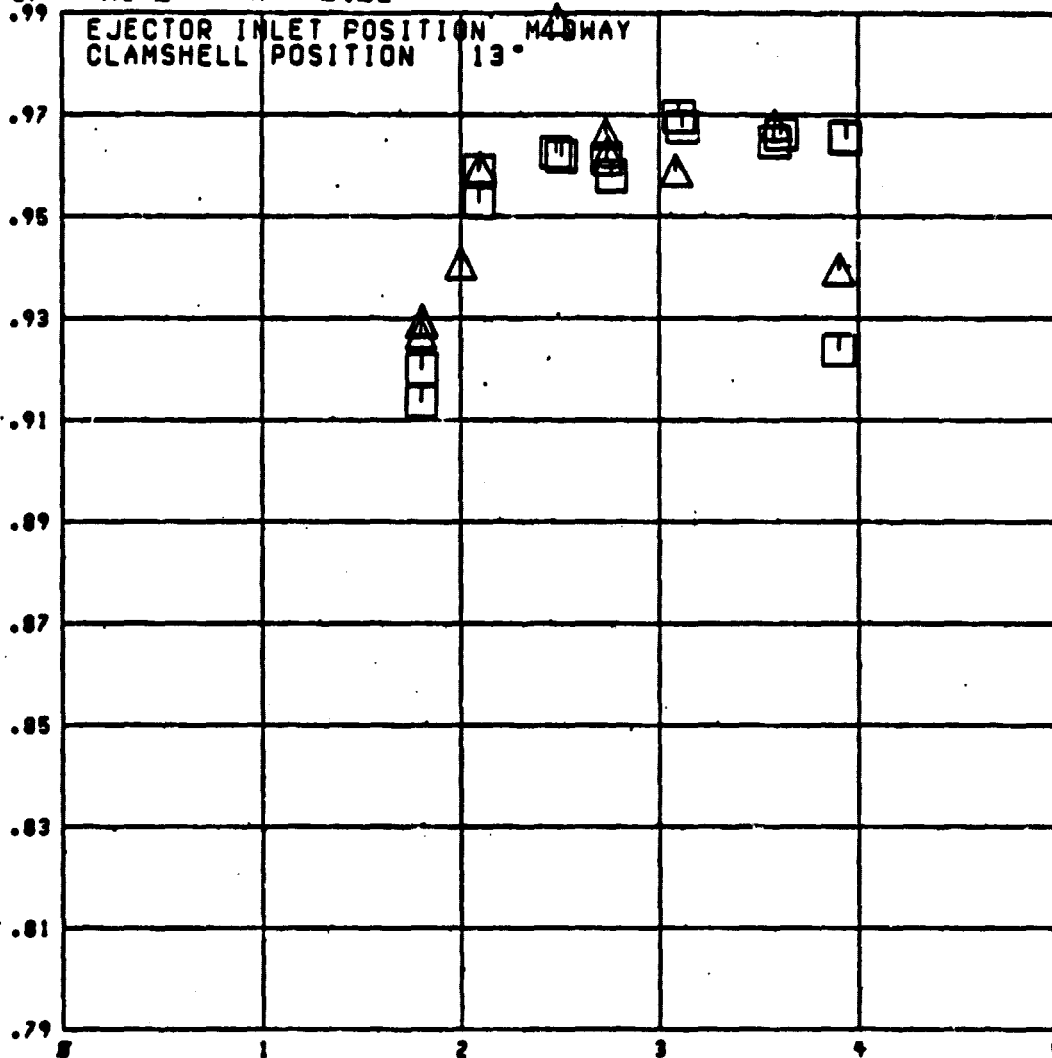
RUN 37

M0=8

M=8.82

$P_{TF}/P_{T0} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, COP



FAN NOZZLE PRESSURE RATIO, PTF/PO

RDG. 1940-1975

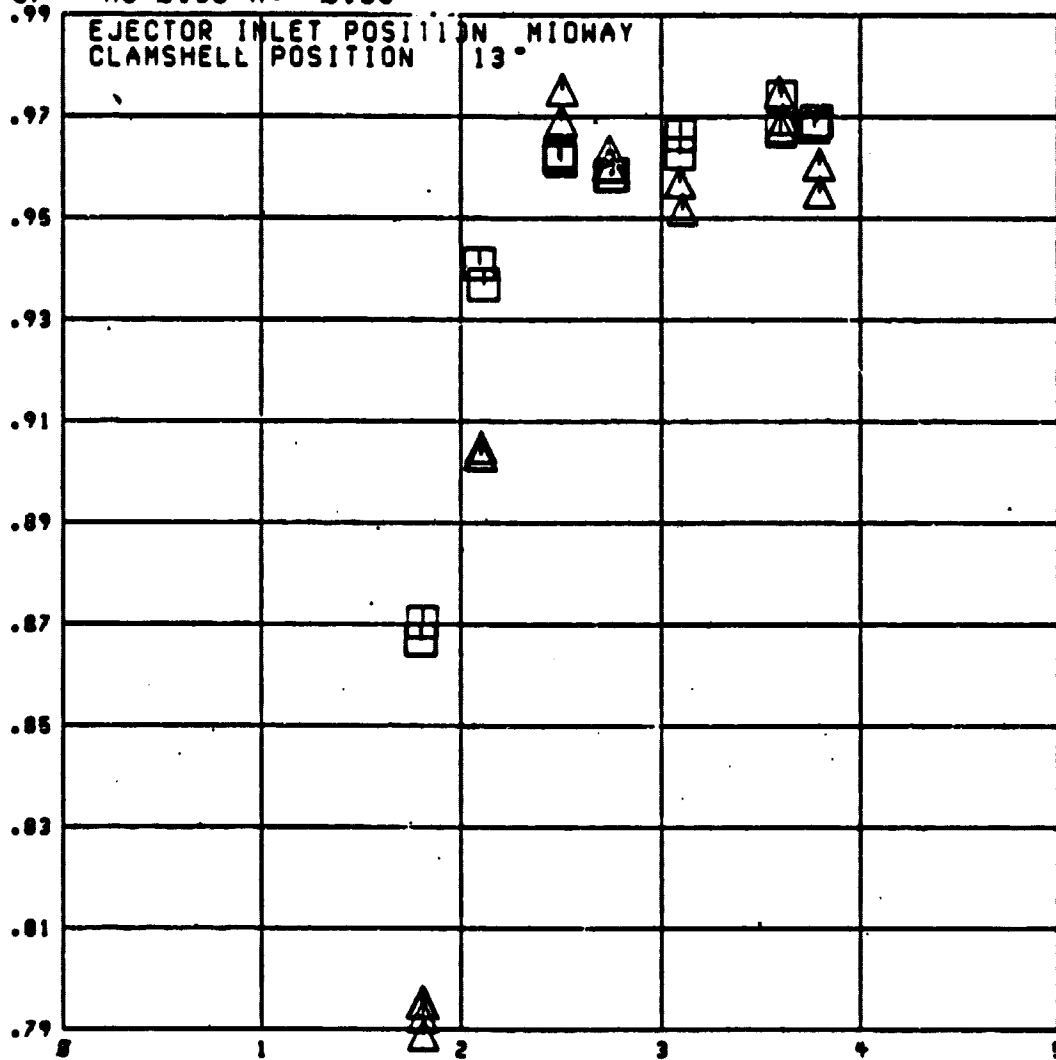
A3  
TAKEOFF

RUN 37

MO=8.36 M=8.36

$P_{tr}/P_{tp} = \square = 1.46$   
 $\Delta = 1.78$

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP



FAN NOZZLE PRESSURE RATIO, PTF/PO

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OF POOR QUALITY

RUN 37

A3

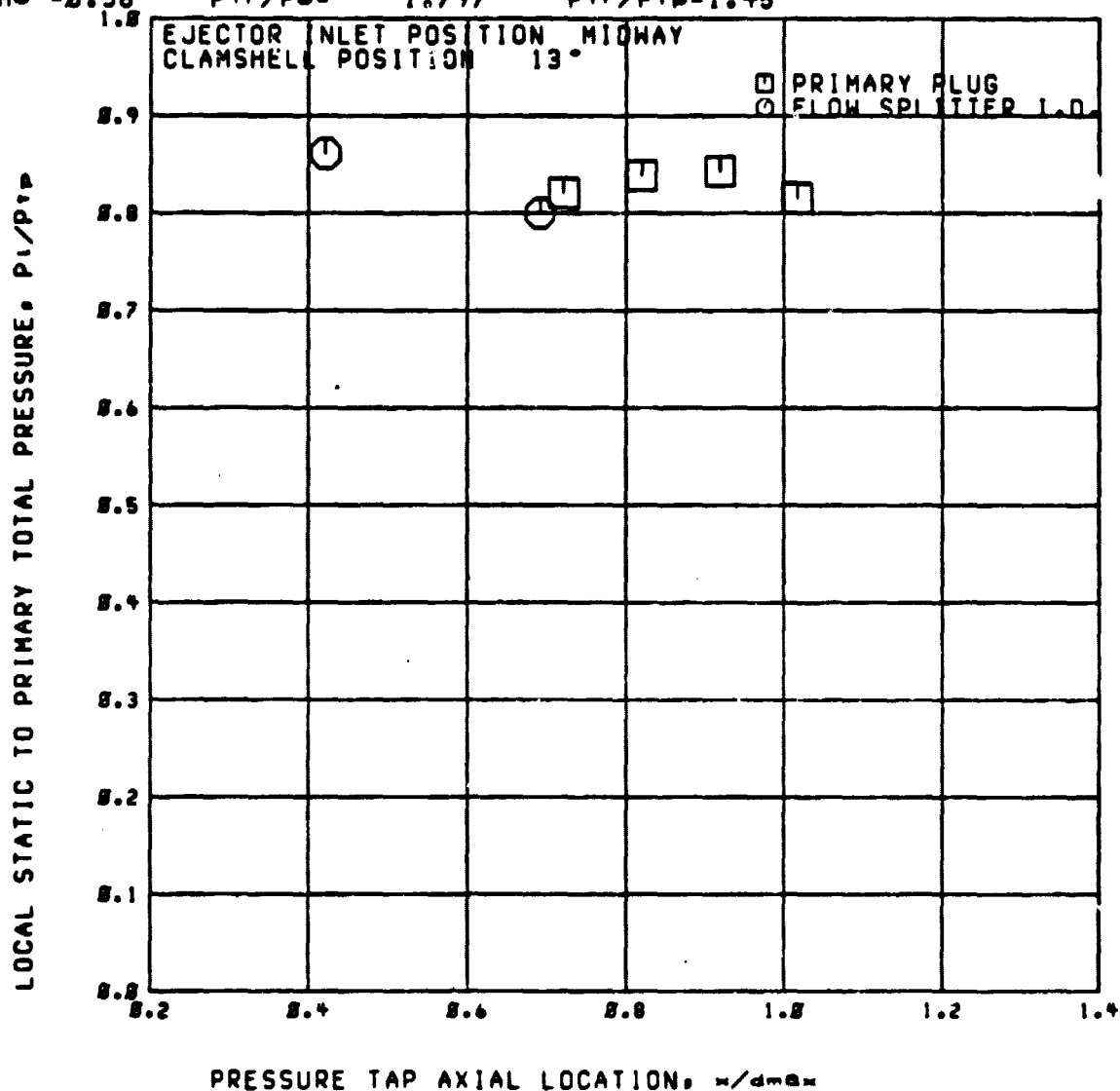
RDG-1958

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.36$

$P_{tr}/P_{e} = 1.797$

$P_{tr}/P_{tr} = 1.45$



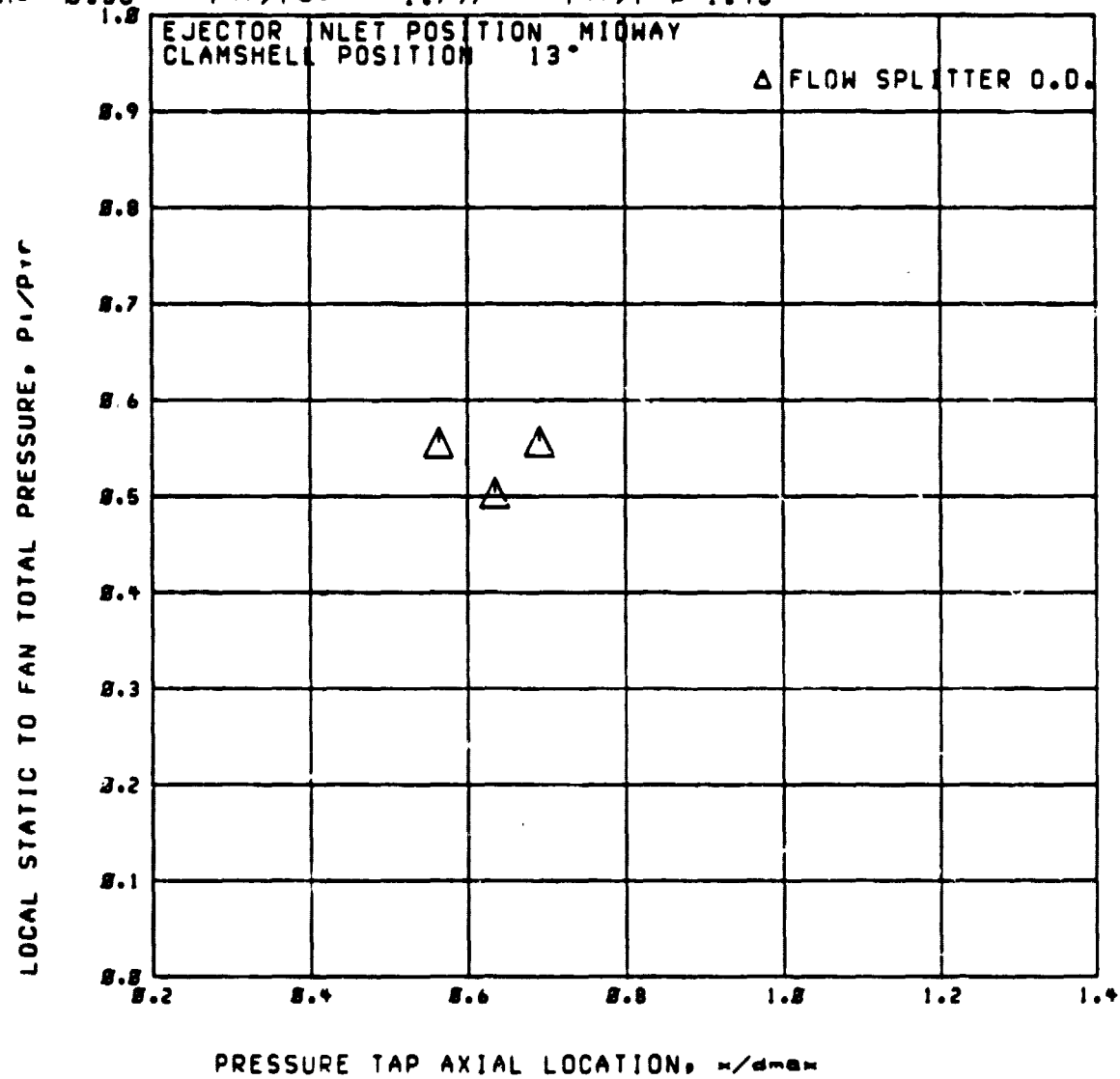
Run 37

A3

RDG-1958

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.36$   $P_{tr}/P_{os} = 1.797$   $P_{tr}/P_{sp} = 1.45$



Run 37

RDG=1958

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$

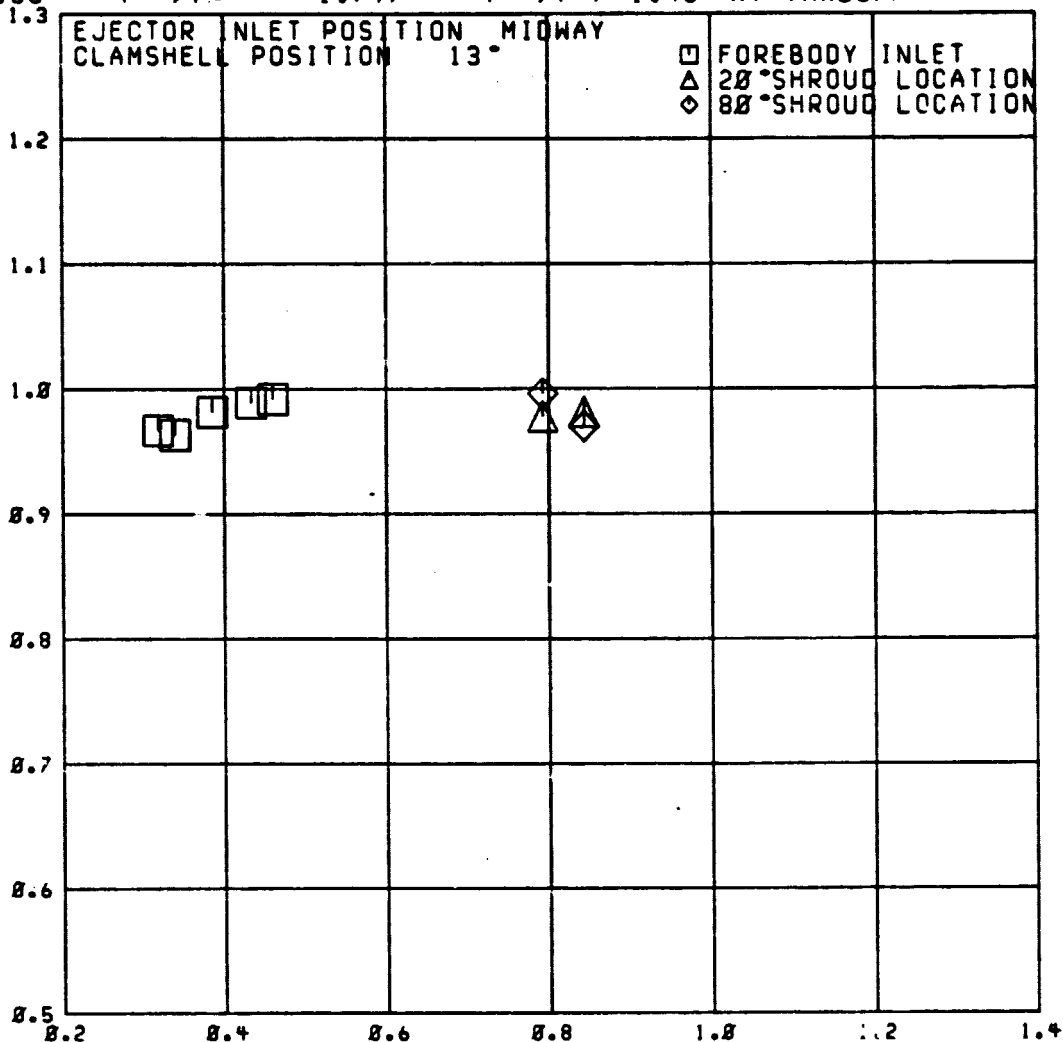
$P_{tr}/P_o =$

1.797

$P_{tr}/P_{tp} = 1.45$

AT TAKEOFF

LOCAL TO AMBIENT STATIC PRESSURE RATIO,  $P_i/P_o$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

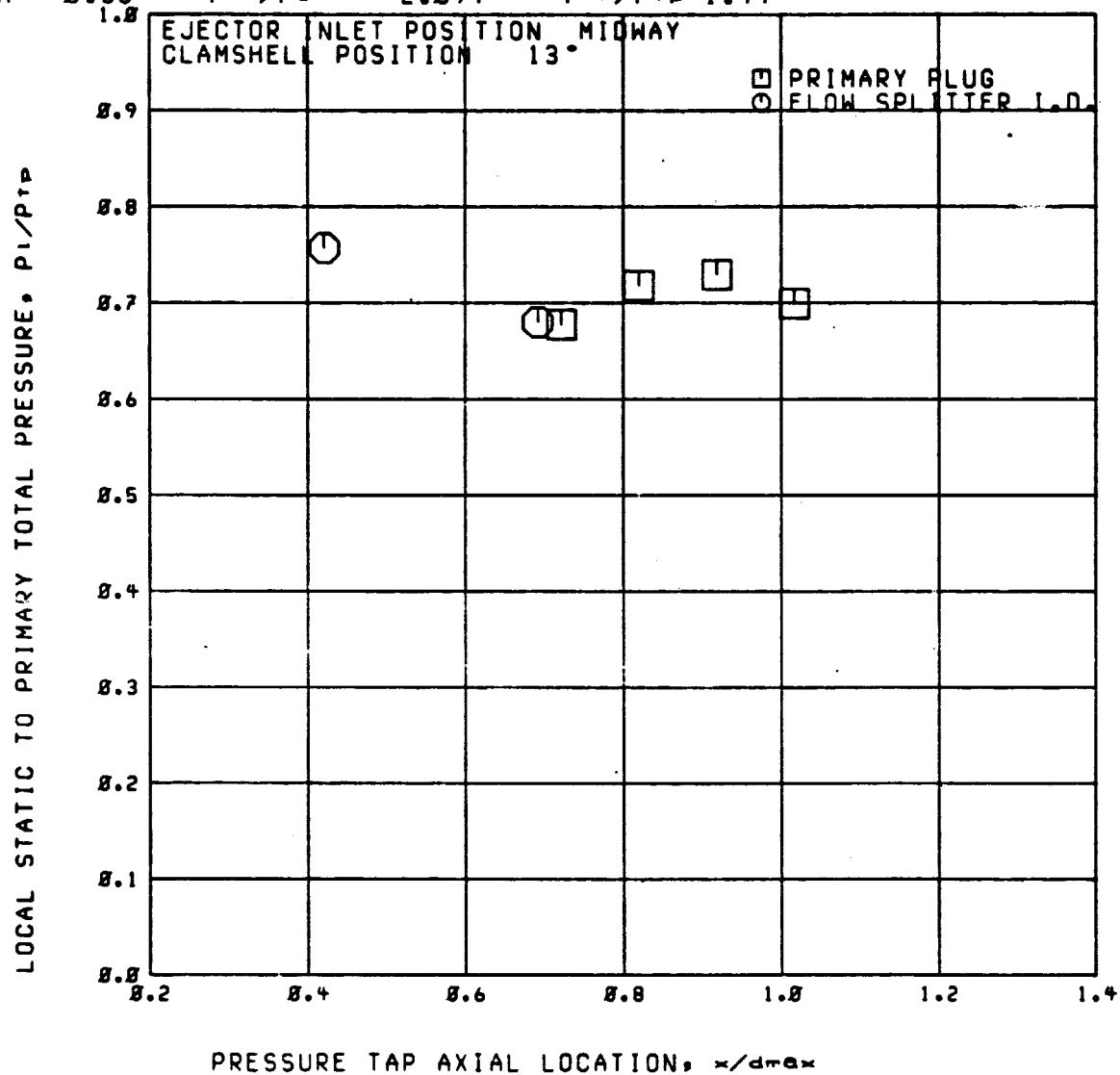
Run 37

A3

RDG=1959

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$   $P_{tr}/P_o = 2.094$   $P_{tr}/P_{tp} = 1.44$





Run 37

A3

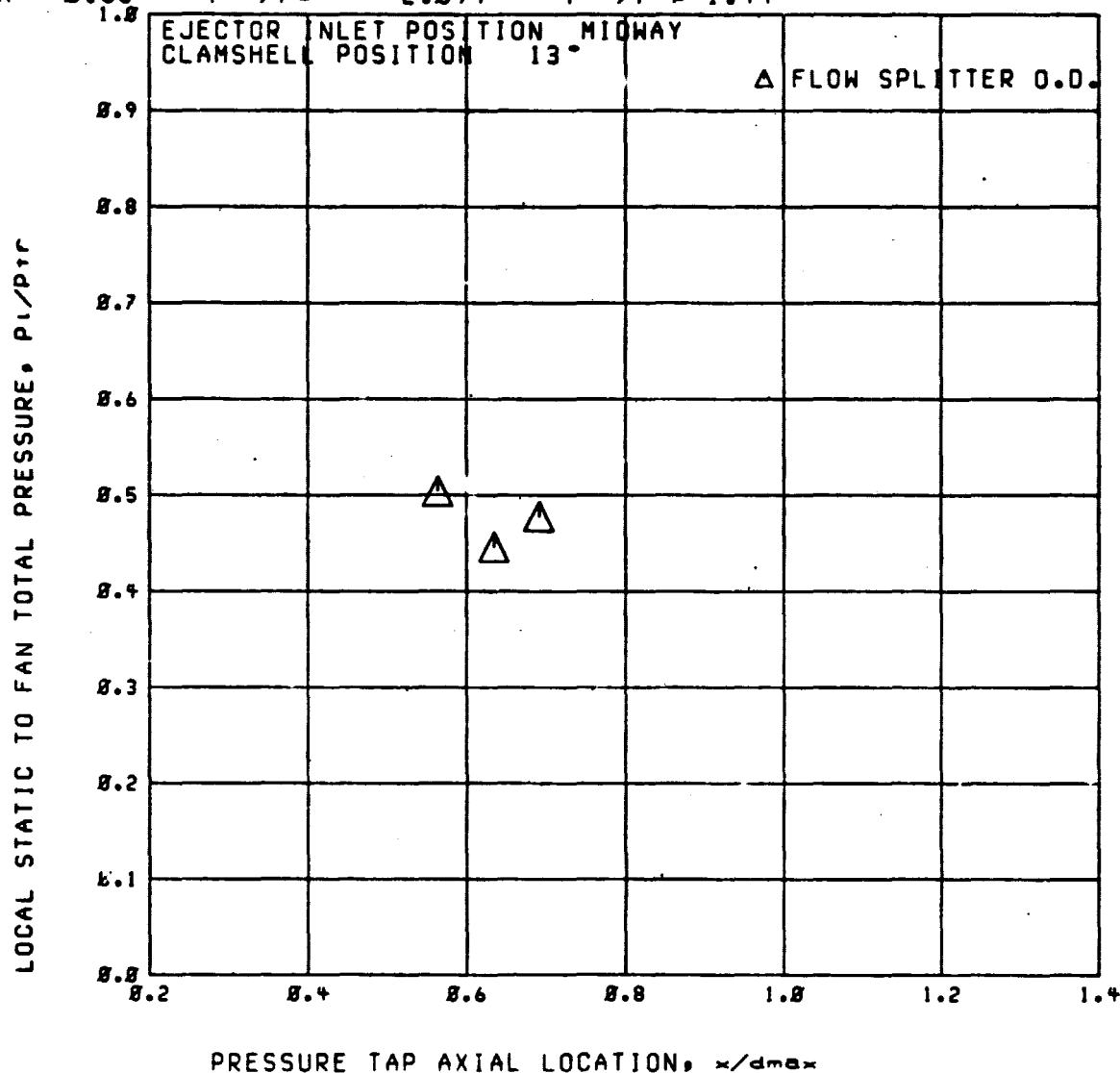
RDG=1959

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_{0e} = 2.894$

$P_{tr}/P_{tp} = 1.44$



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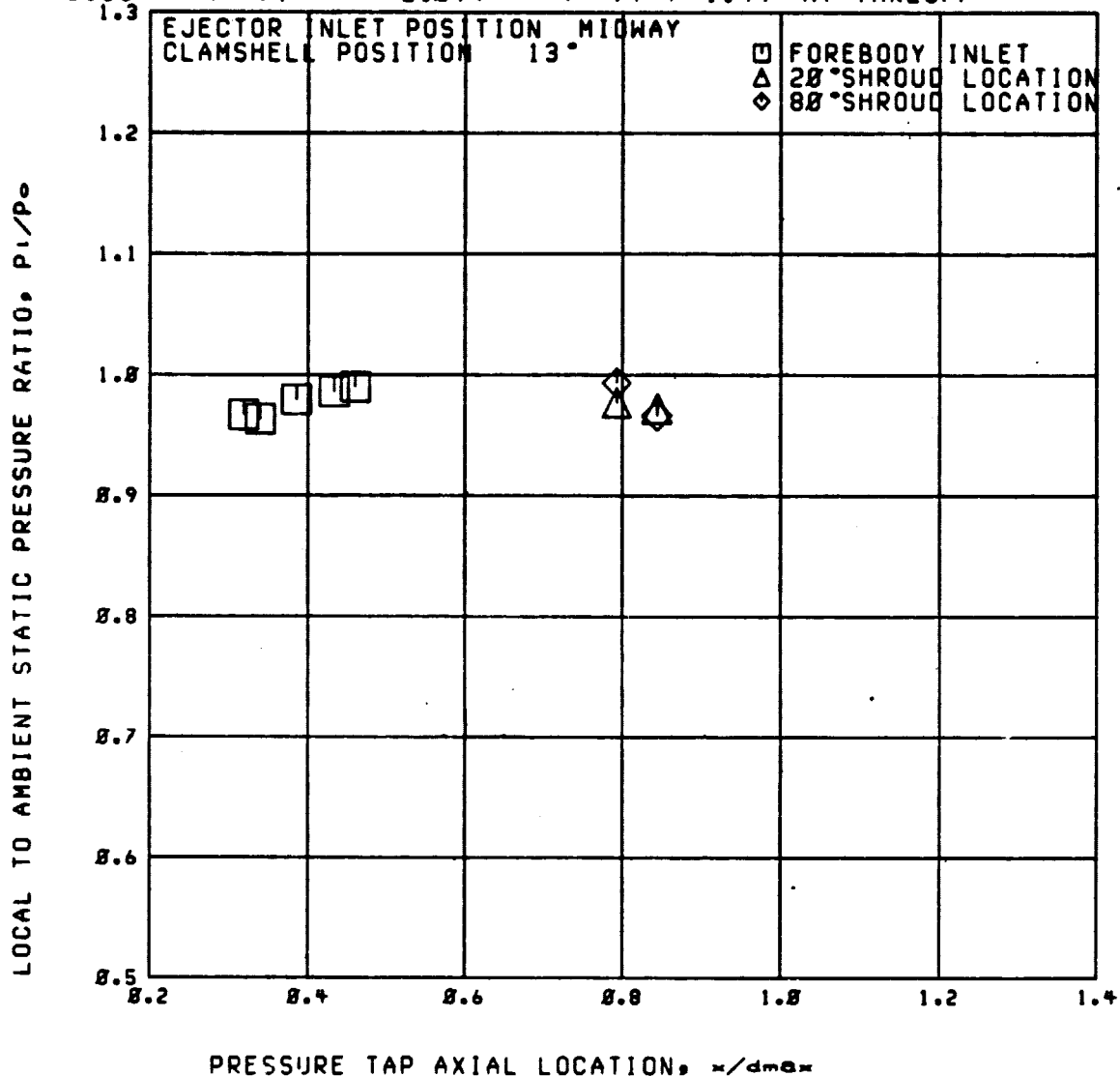
RUN 37

A3

RDG=1959

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$   $P_{tr}/P_0 = 2.094$   $P_{tr}/P_{tr} = 1.44$  AT TAKEOFF



Run 37

RDG=1968

A3

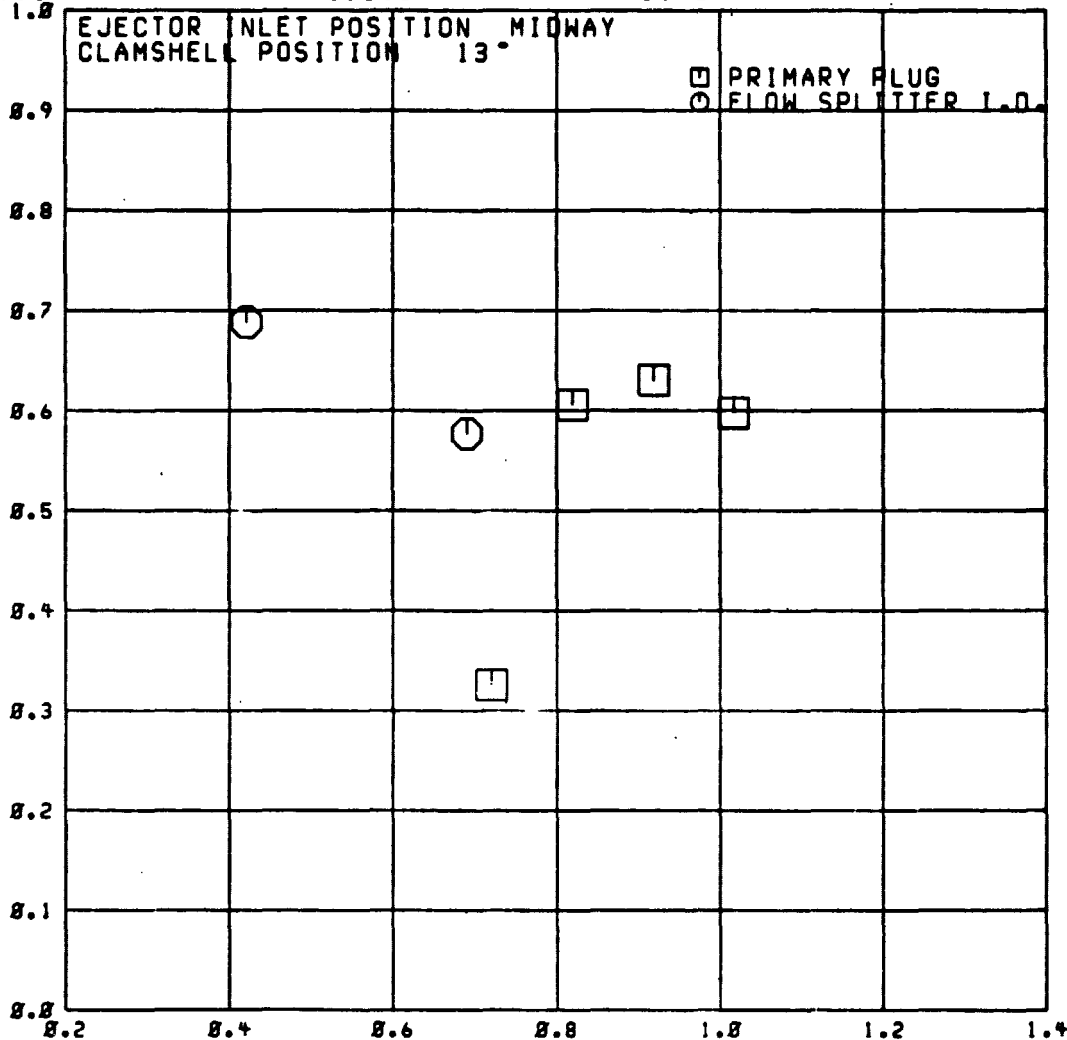
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$Mo = 0.36$

$P_{tr}/P_o = 2.508$

$P_{tr}/P_{tr} = 1.45$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

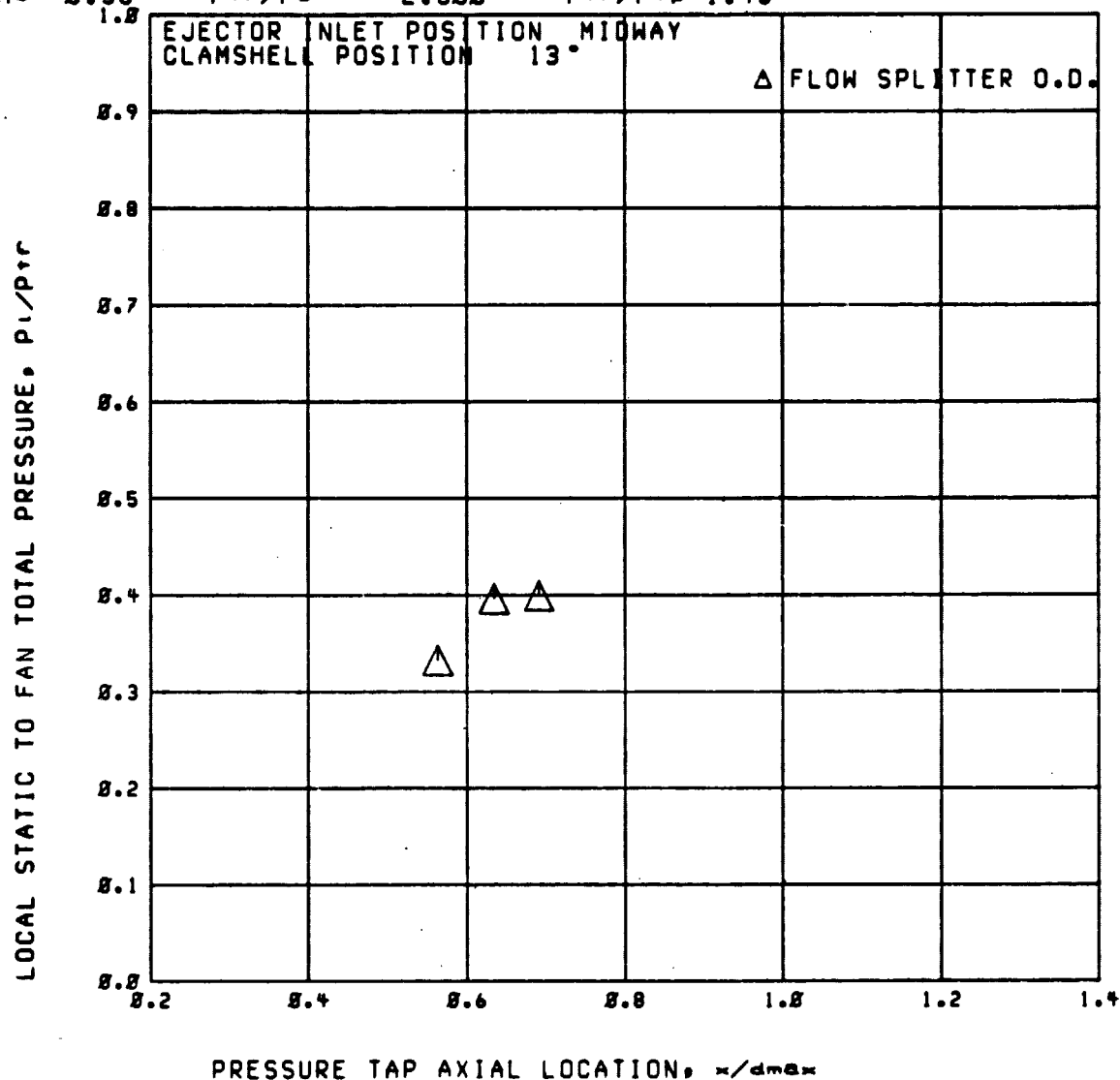
Run 37

A3

RDG=1968

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_{00} = 2.500$   $P_{tr}/P_{tr0} = 1.45$



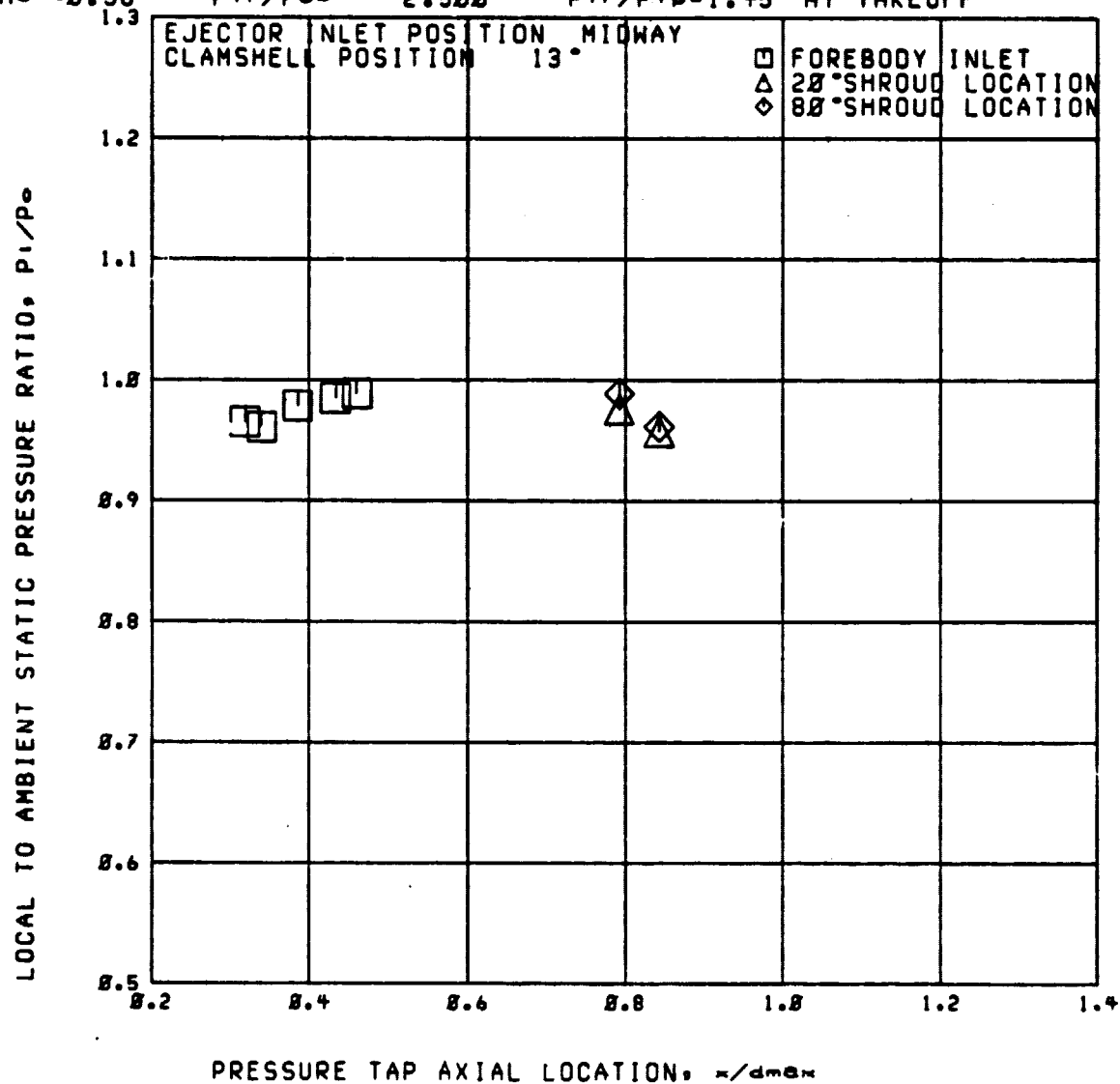
RUN 37

RDG=1968

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$   $P_{tr}/P_0 = 2.588$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



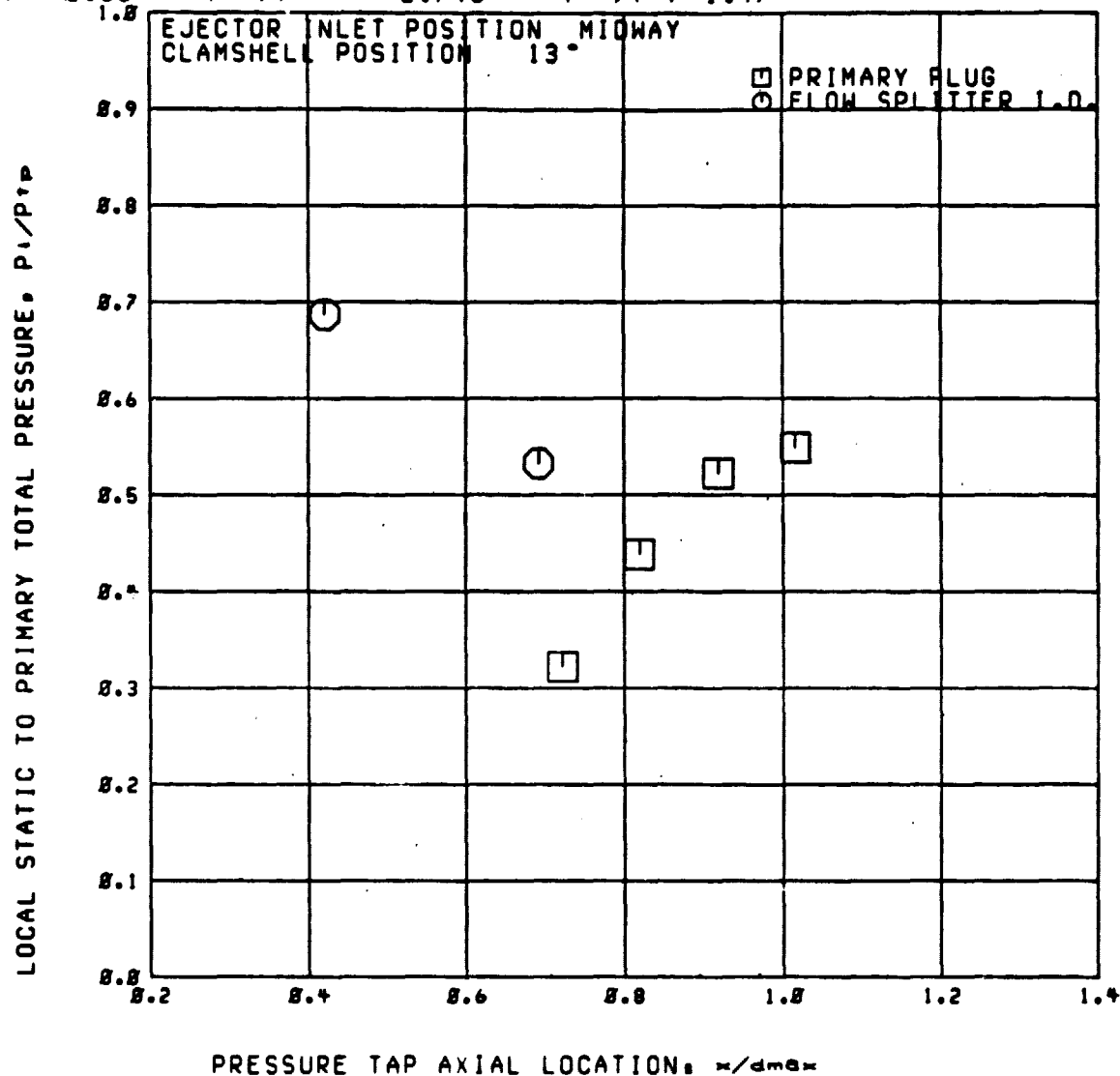
Run 37

A3

RDG=1961

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 2.746$   $P_{tr}/P_{tp} = 1.47$



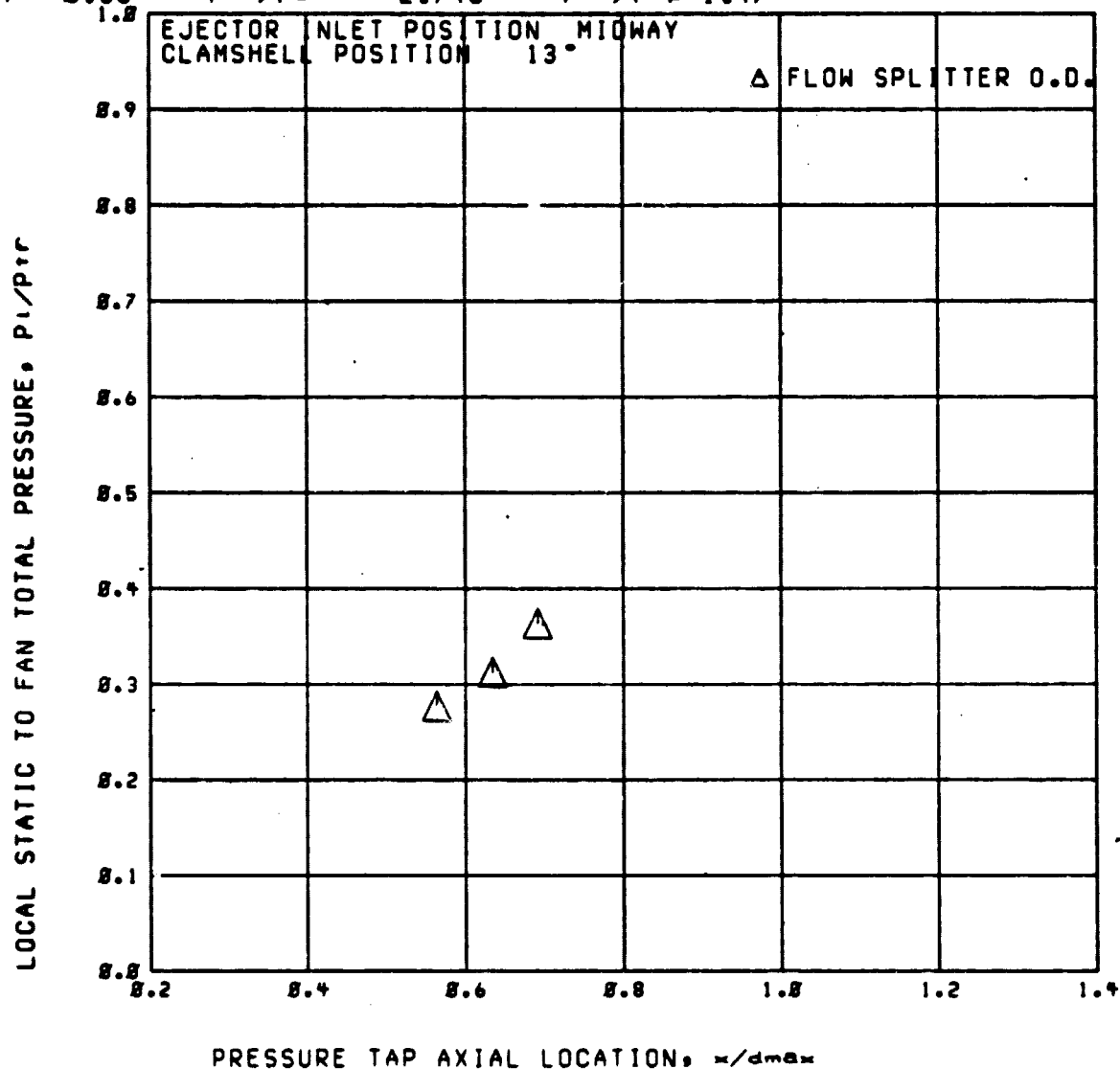
Run 37

A3

RDG=1961

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.36$   $P_{tr}/P_{\infty} = 2.746$   $P_{tr}/P_{tr} = 1.47$



ORIGINAL PAGE 1  
OF FOUR QUALITY

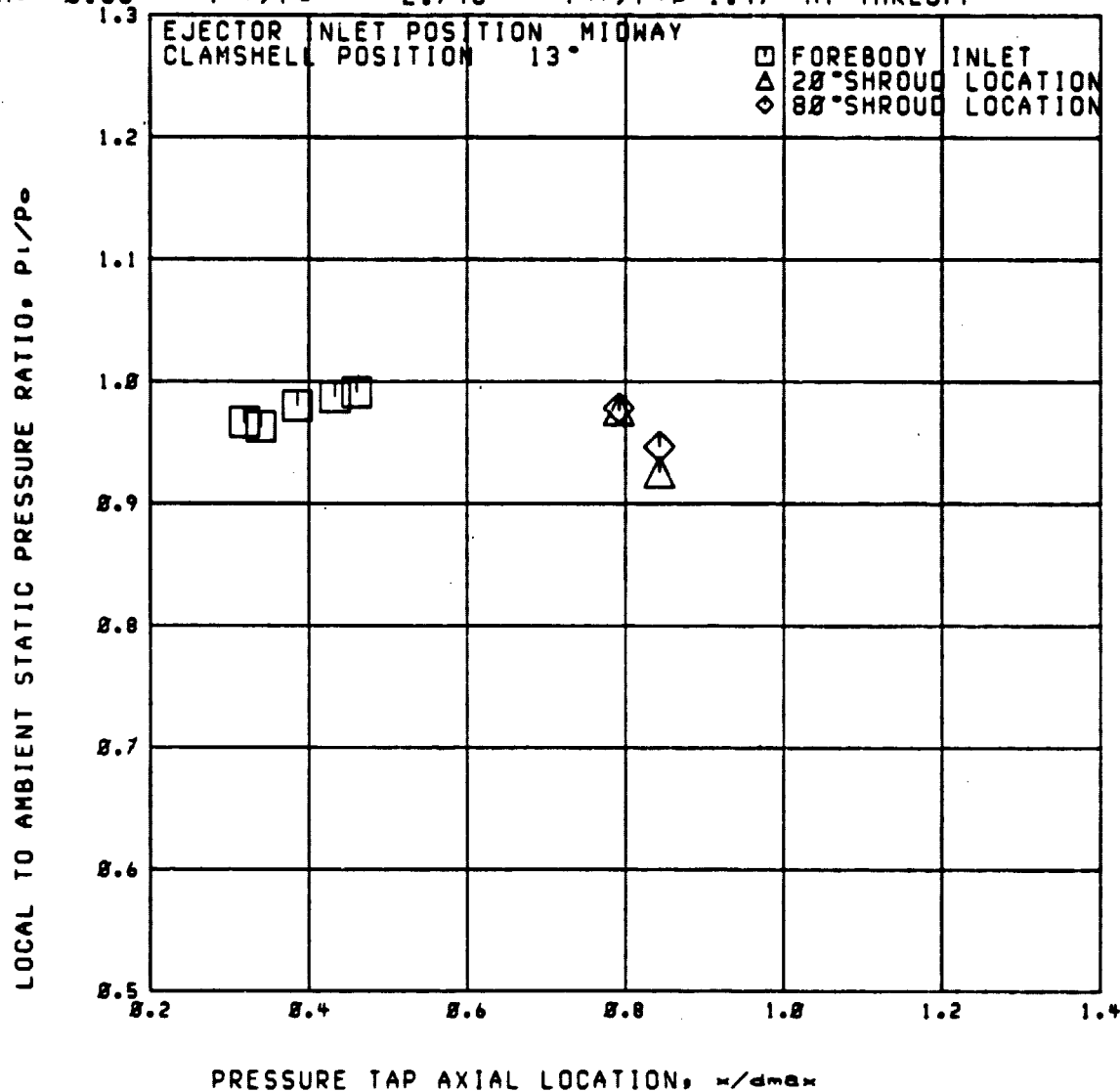
Run 37

RDG=1961

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{ir}/P_o = 2.746$   $P_{ir}/P_{ip} = 1.47$  AT TAKEOFF





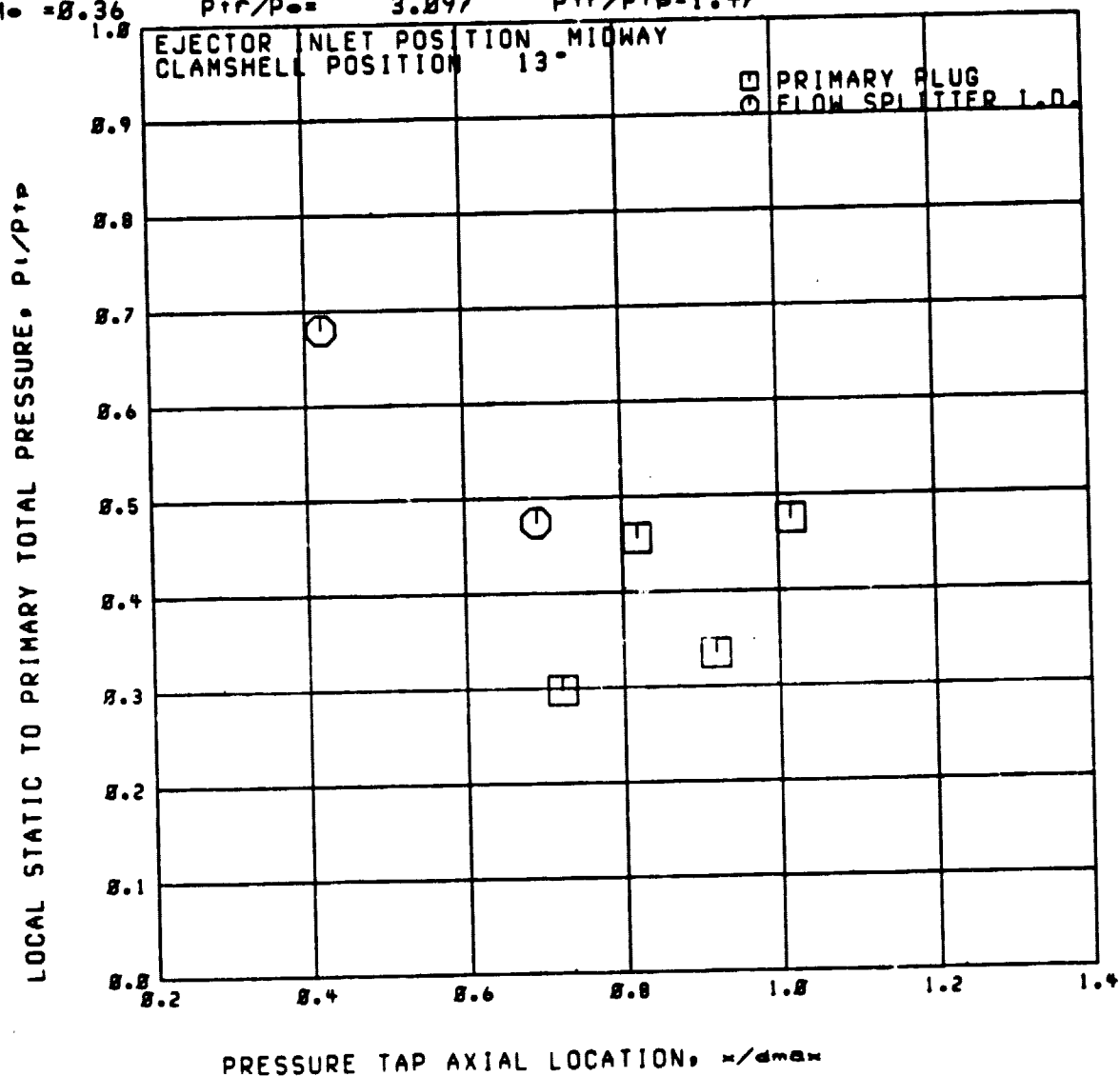
Run 37

RDG-1962

A3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$   $P_{ir}/P_o = 3.897$   $P_{ir}/P_{ip} = 1.47$



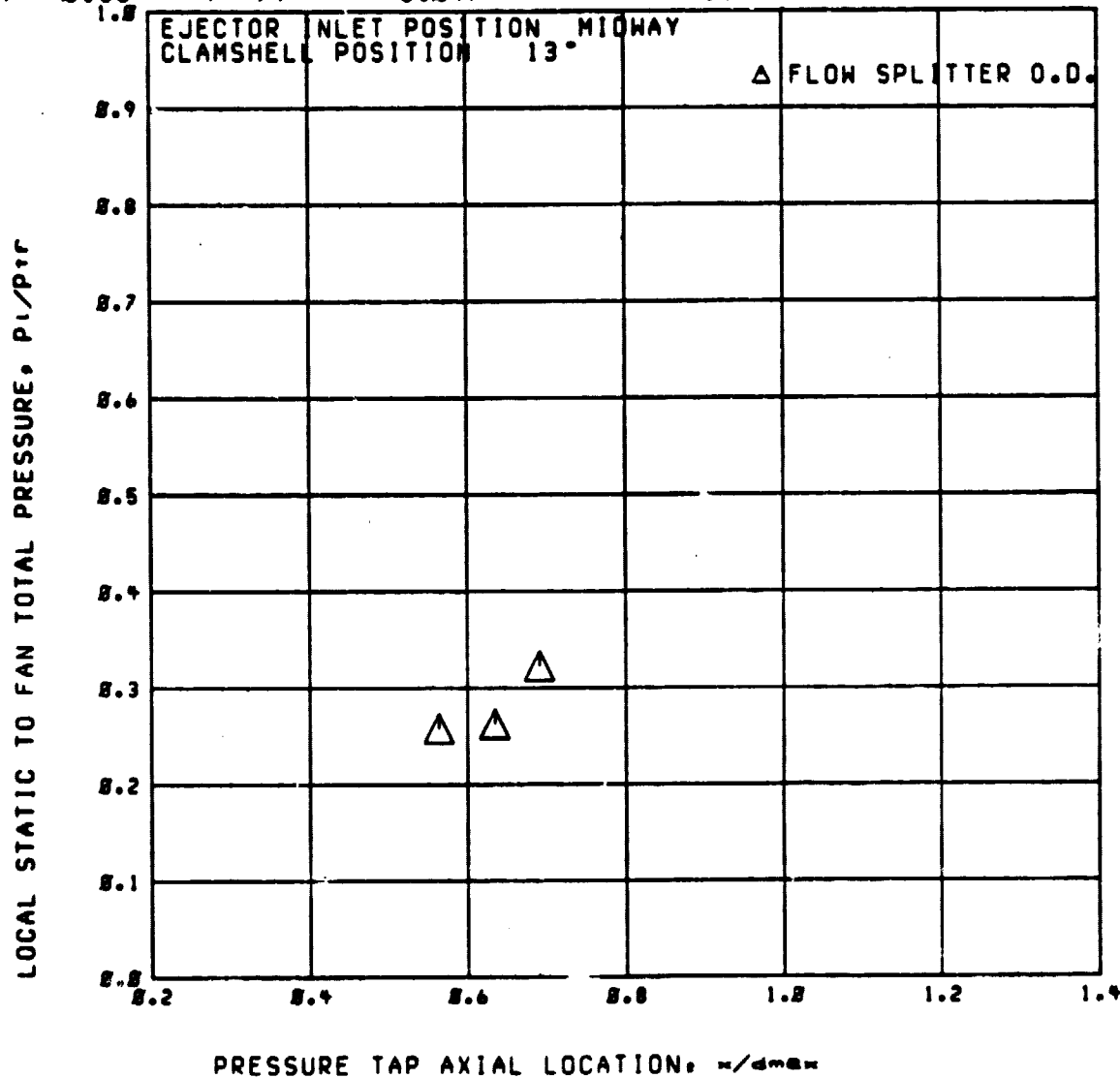
Run 37

A3

RDG=1962

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.36$   $P_{tr}/P_{\infty} = 3.897$   $P_{tr}/P_{tr0} = 1.47$



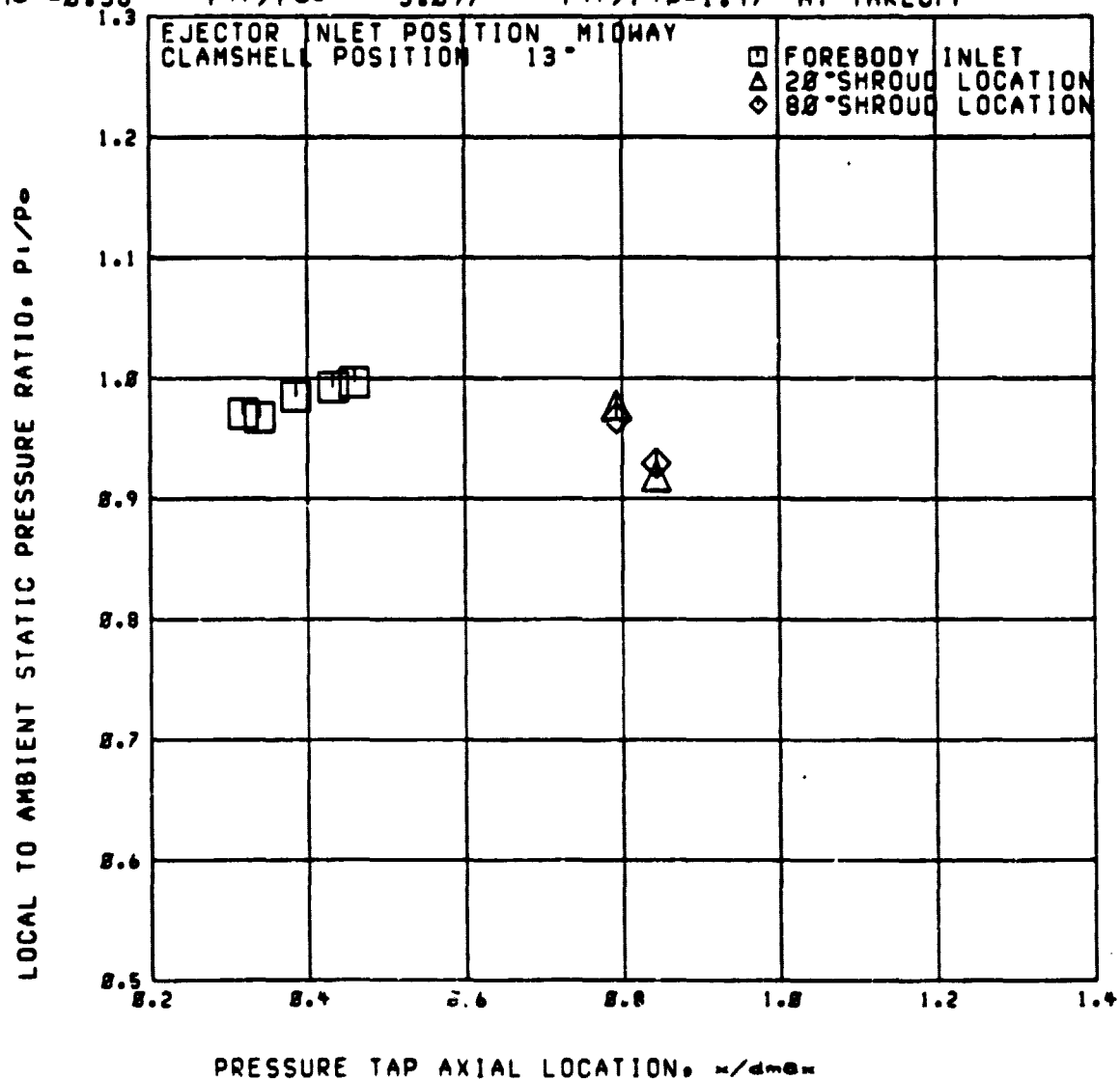
RUN 37

RDG-1962

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M = 2.36$   $P_{TC}/P_{\infty} = 3.897$   $P_{TC}/P_{TP} = 1.47$  AT TAKEOFF



Run 37

A3

RDG=1963

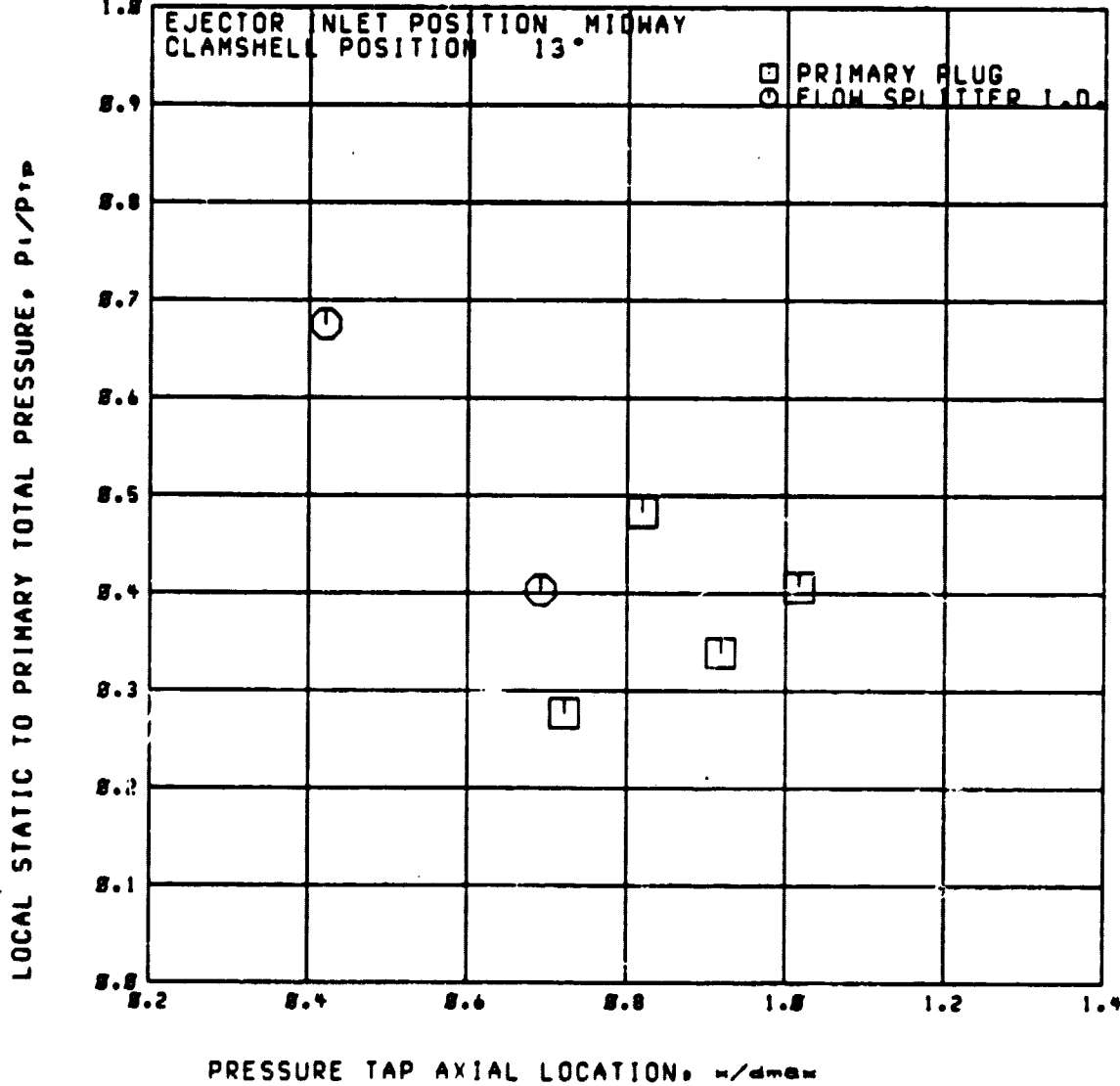
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{ir}/P_0 =$

3.689

$P_{ir}/P_{ip} = 1.45$



ORIGINAL FILE  
OF POOR QUALITY

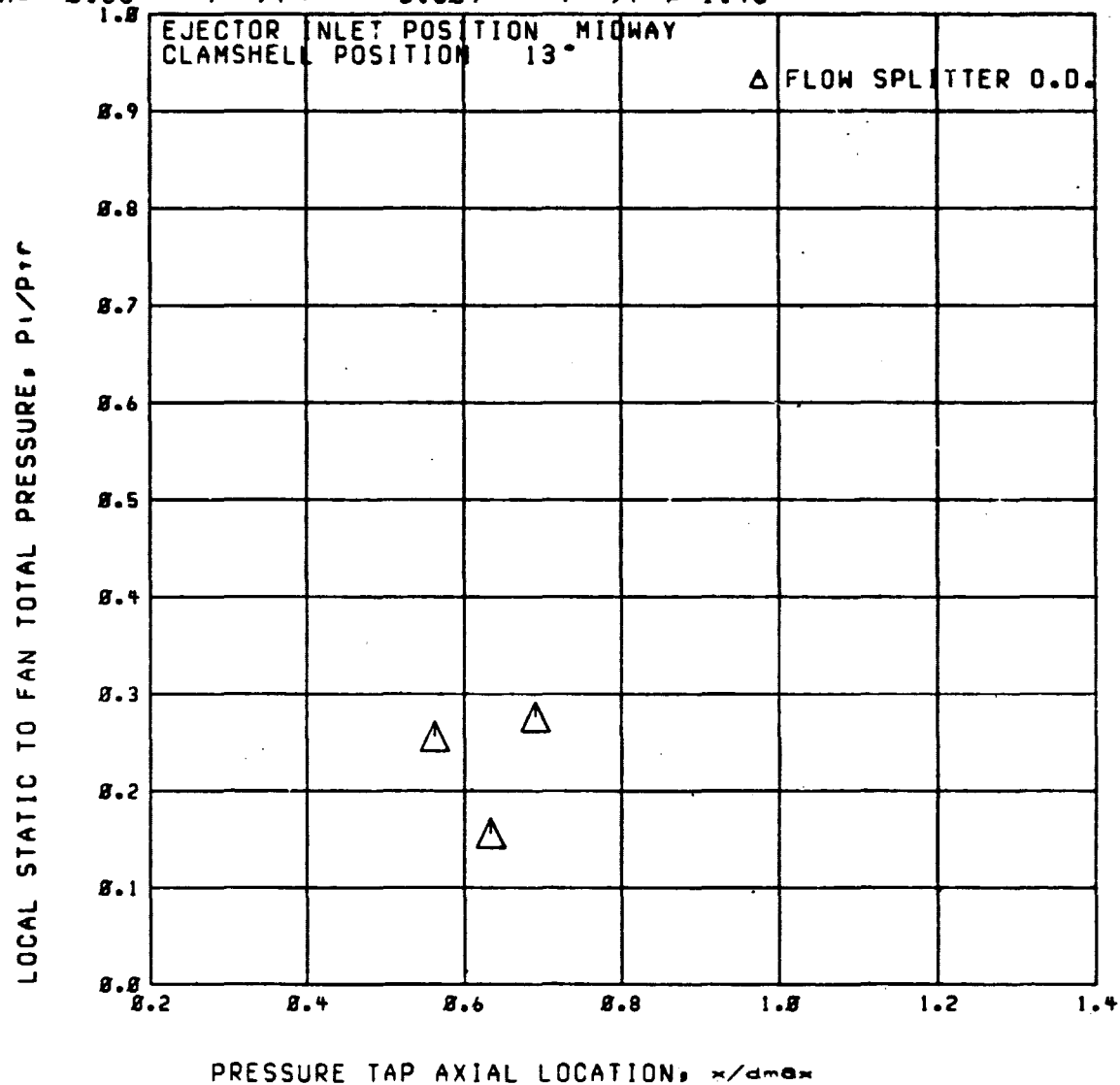
Run 37

A3

RDG=1963

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 3.689$   $P_{tr}/P_{tp} = 1.45$



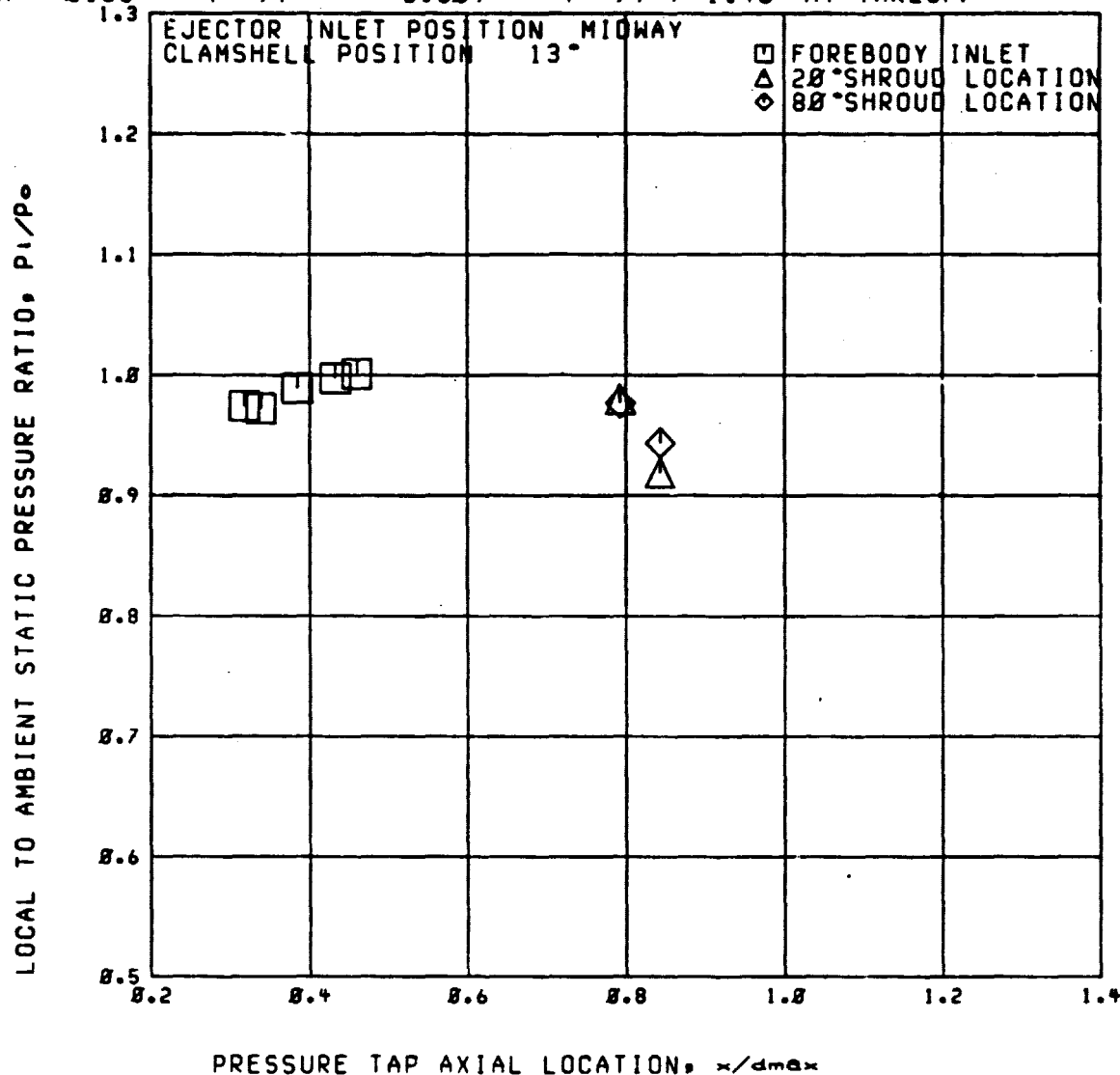
RUN 37

RDG=1963

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 3.689$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



Run 37

A3

RDG=1964

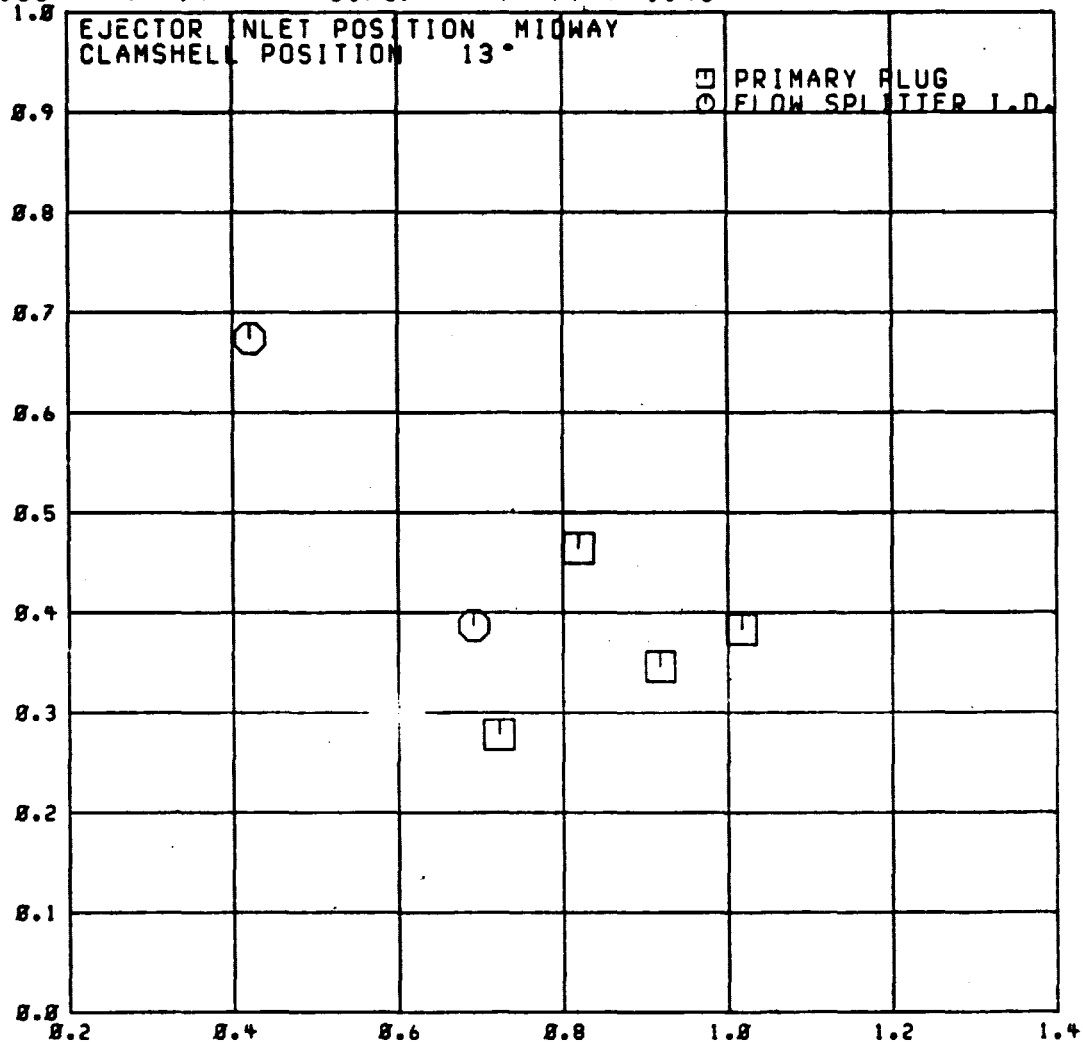
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 = 3.787$

$P_{tr}/P_{tp} = 1.45$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_t/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

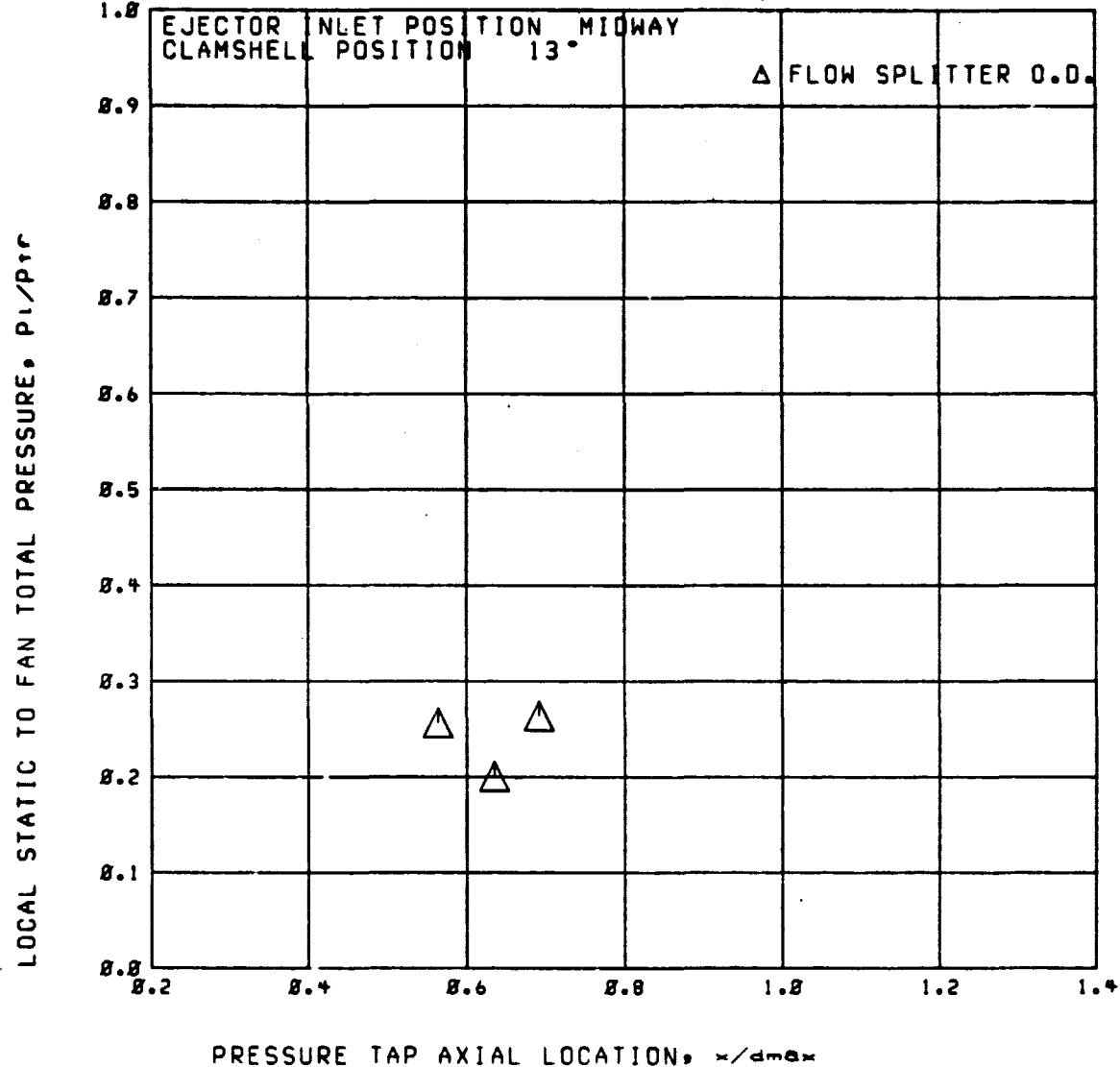
Run 37

A3

RDG=1964

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 3.787$   $P_{tr}/P_{trp} = 1.45$





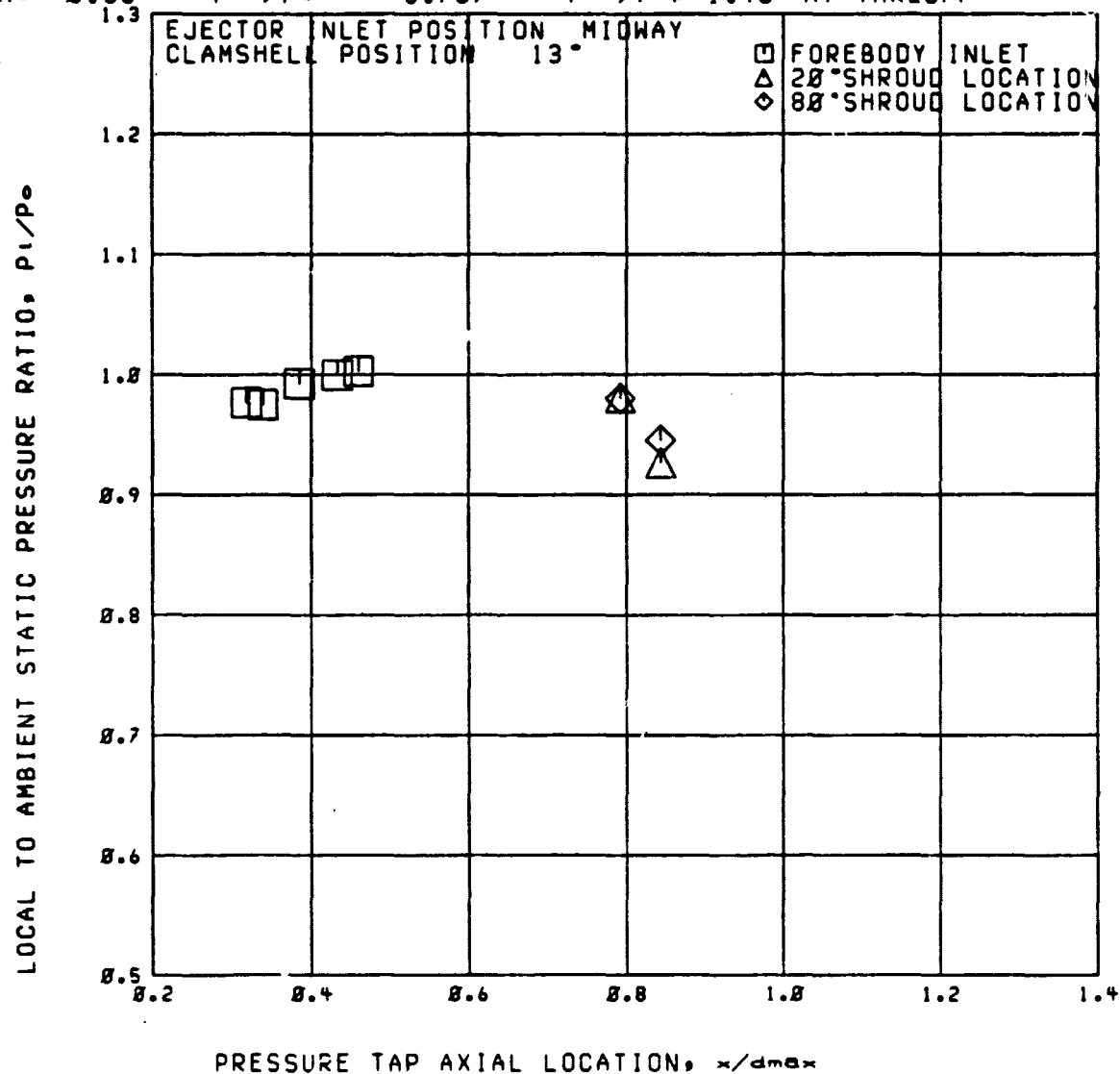
RUN 37

RDG=1964

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$   $P_{tr}/P_0 = 3.787$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



ORIGINAL FILED IN  
C-17-11-10-11-11

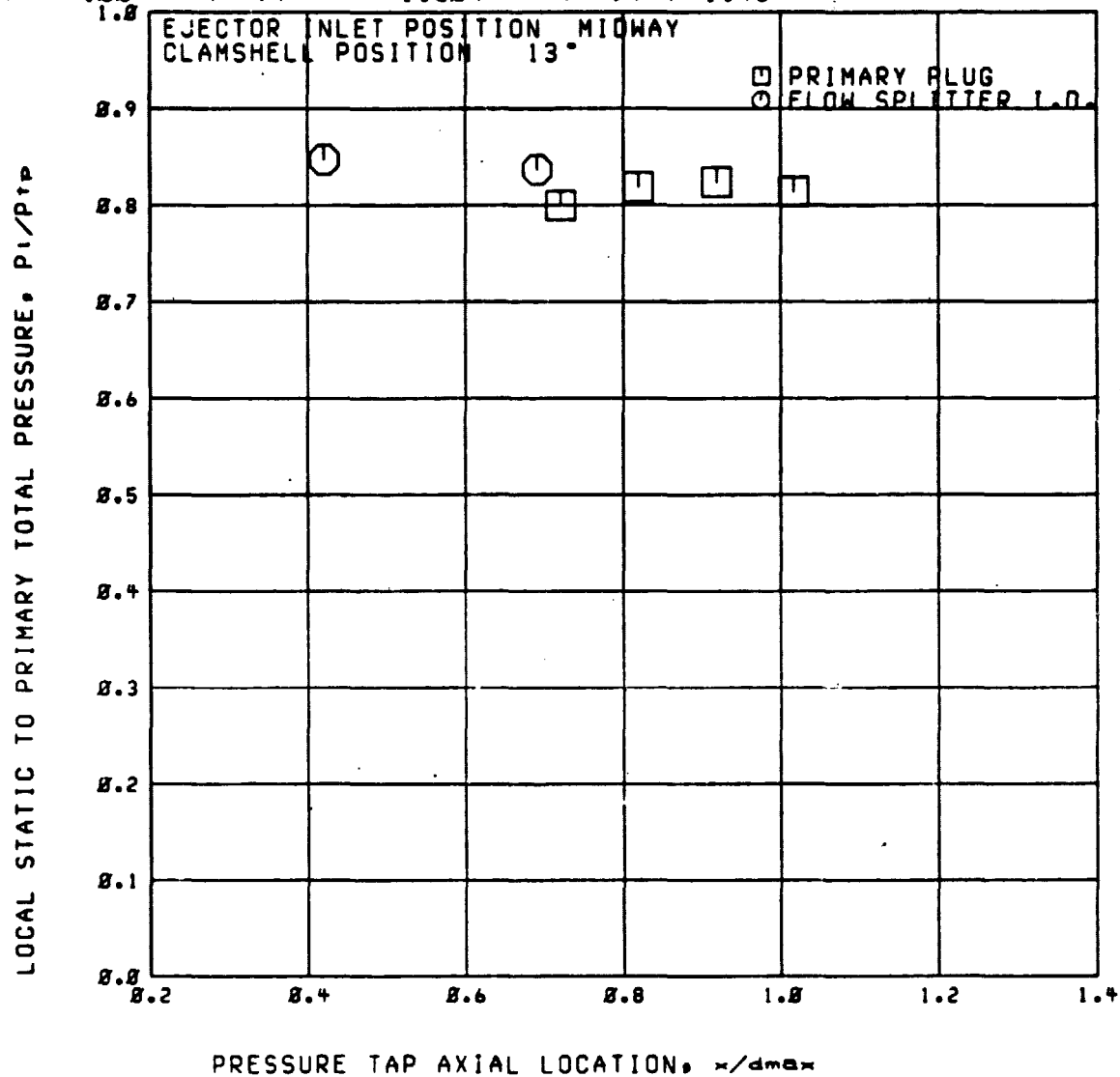
RUN 37

A3

RDG=1984

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = -.88$   $P_{tr}/P_0 = 1.884$   $P_{tr}/P_{tp} = 1.46$



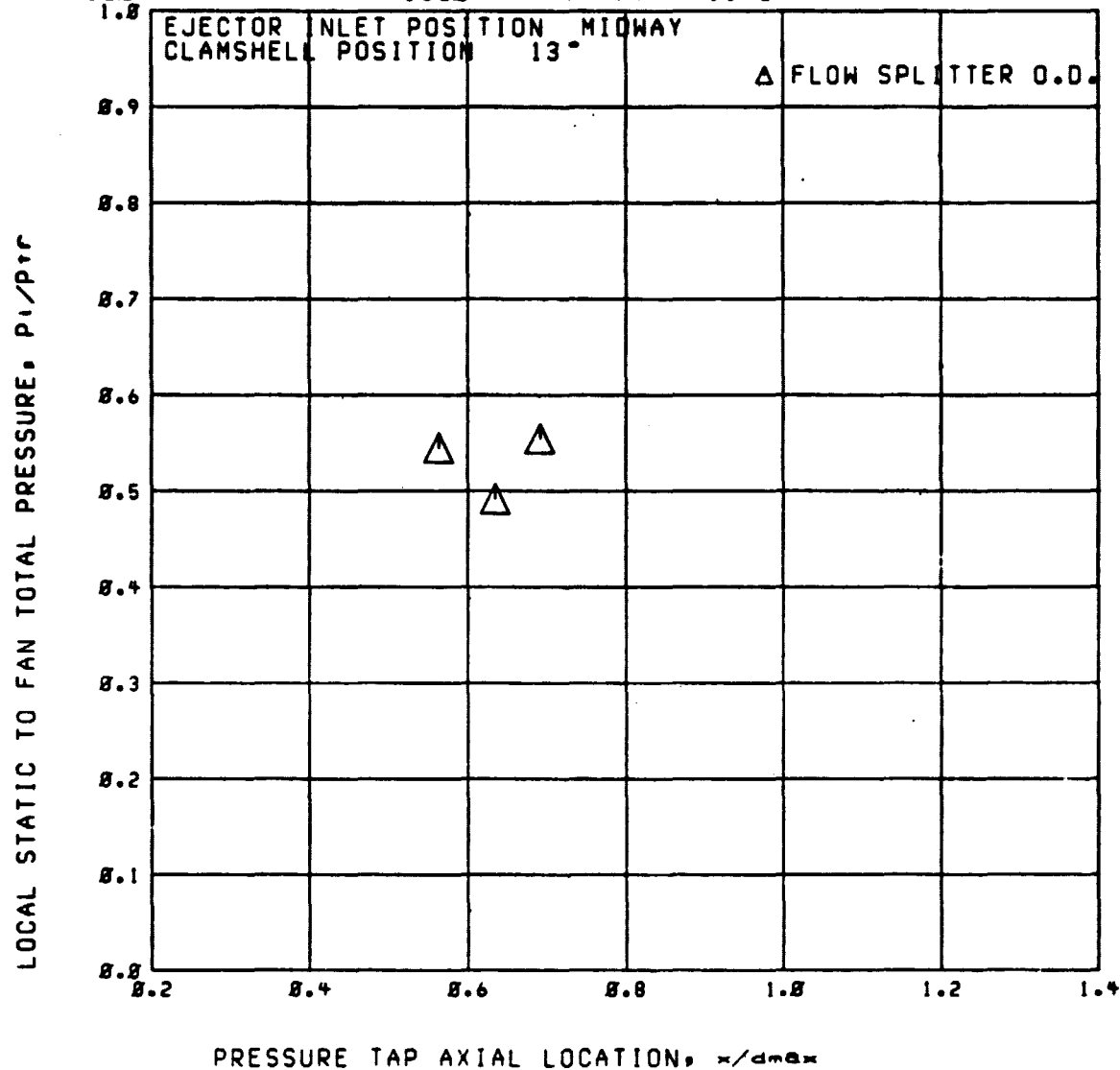
Run 37

A3

RDG=1984

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = -.00$   $P_{tr}/P_{os} = 1.804$   $P_{tr}/P_{tp} = 1.46$



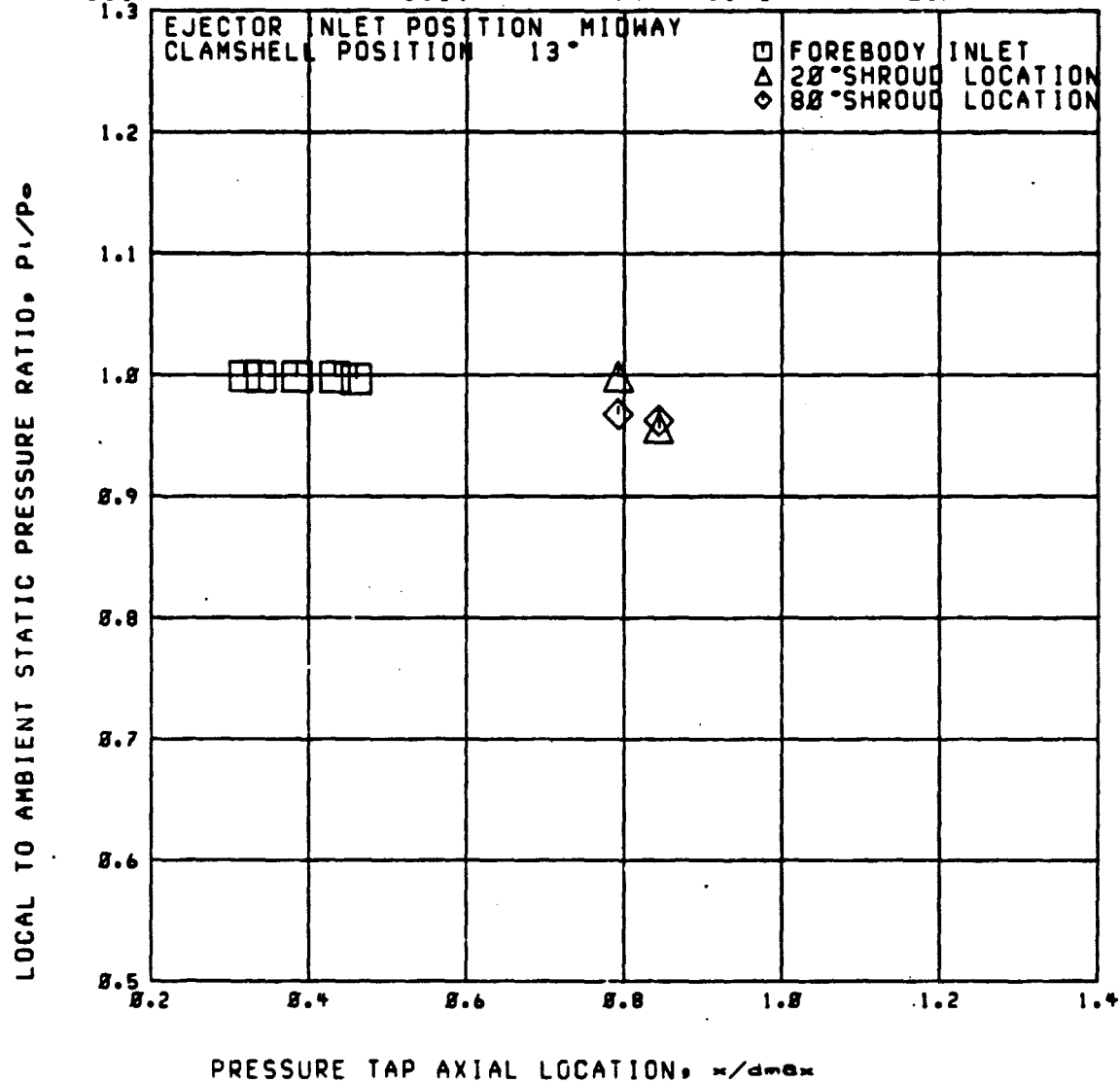
Run 37

A3

RDG=1984

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M = -.88$   $P_{tr}/P_o = 1.884$   $P_{tr}/P_{tr} = 1.46$  AT TAKEOFF



RUN 37

A3

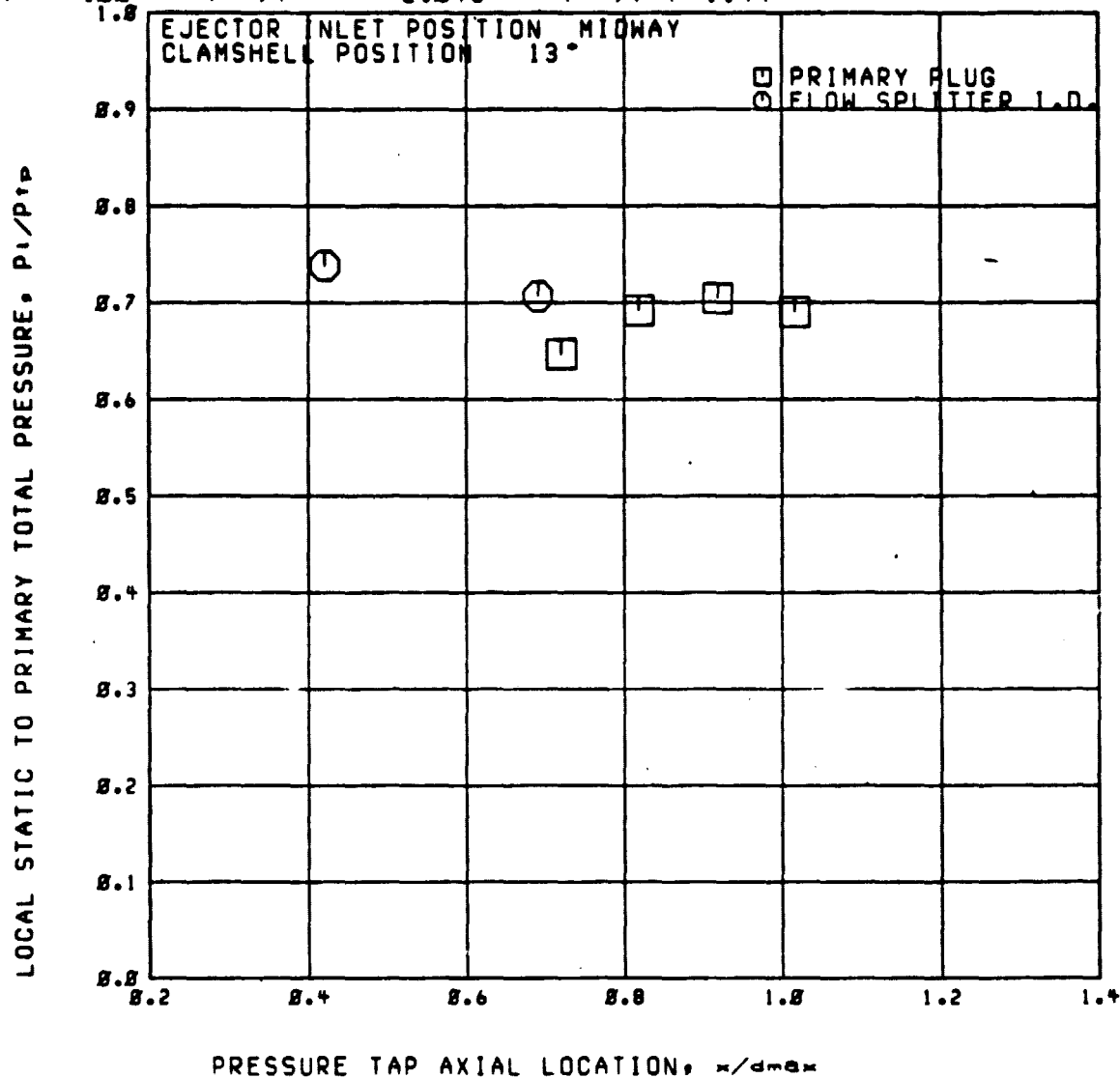
RDG=1985

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = -.88$

$P_{tr}/P_{00} = 2.898$

$P_{tr}/P_{tp} = 1.44$



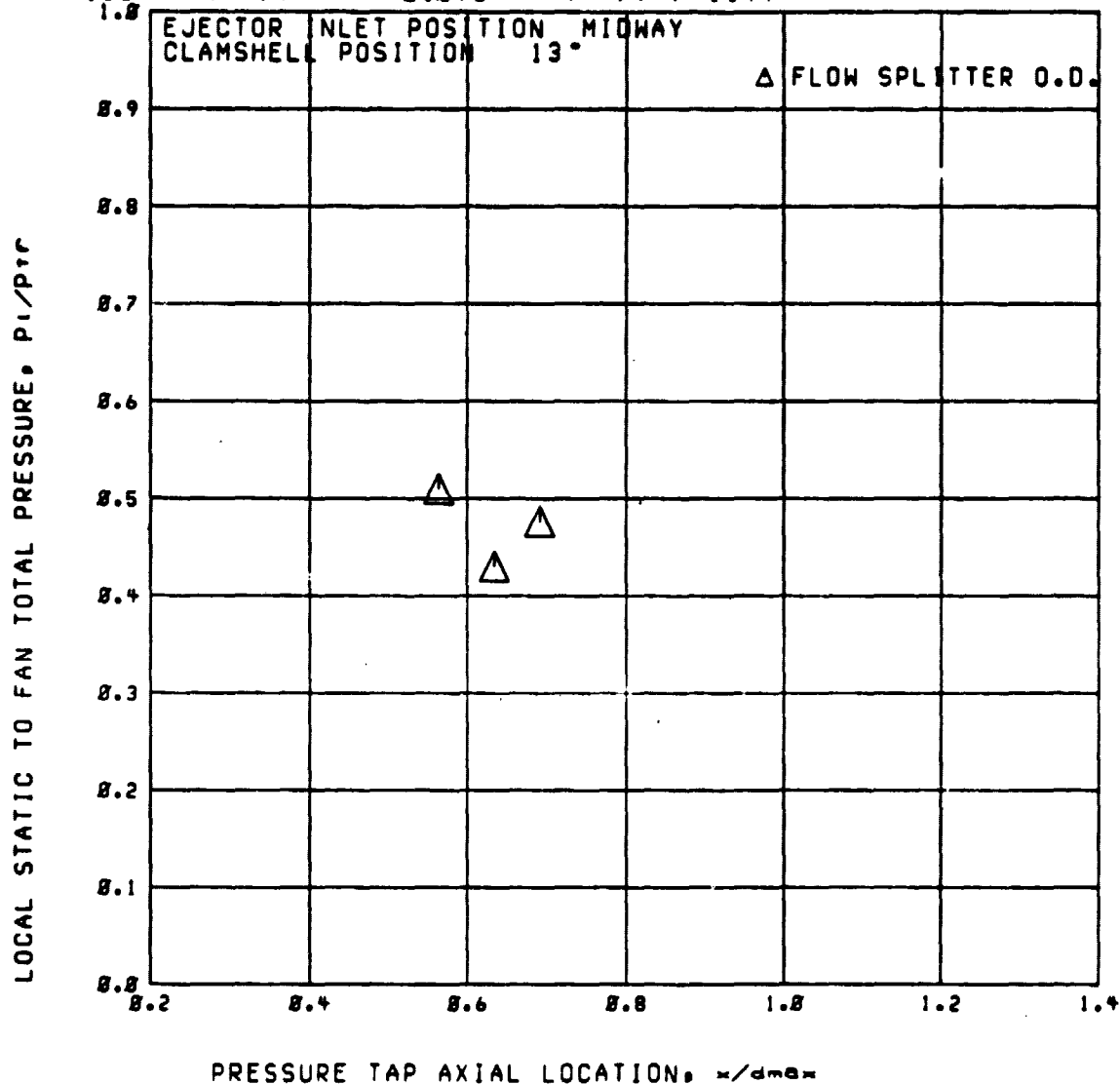
Run 37

A3

RDG=1985

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = -.88$   $P_{tr}/P_0 = 2.898$   $P_{tr}/P_{tr} = 1.44$



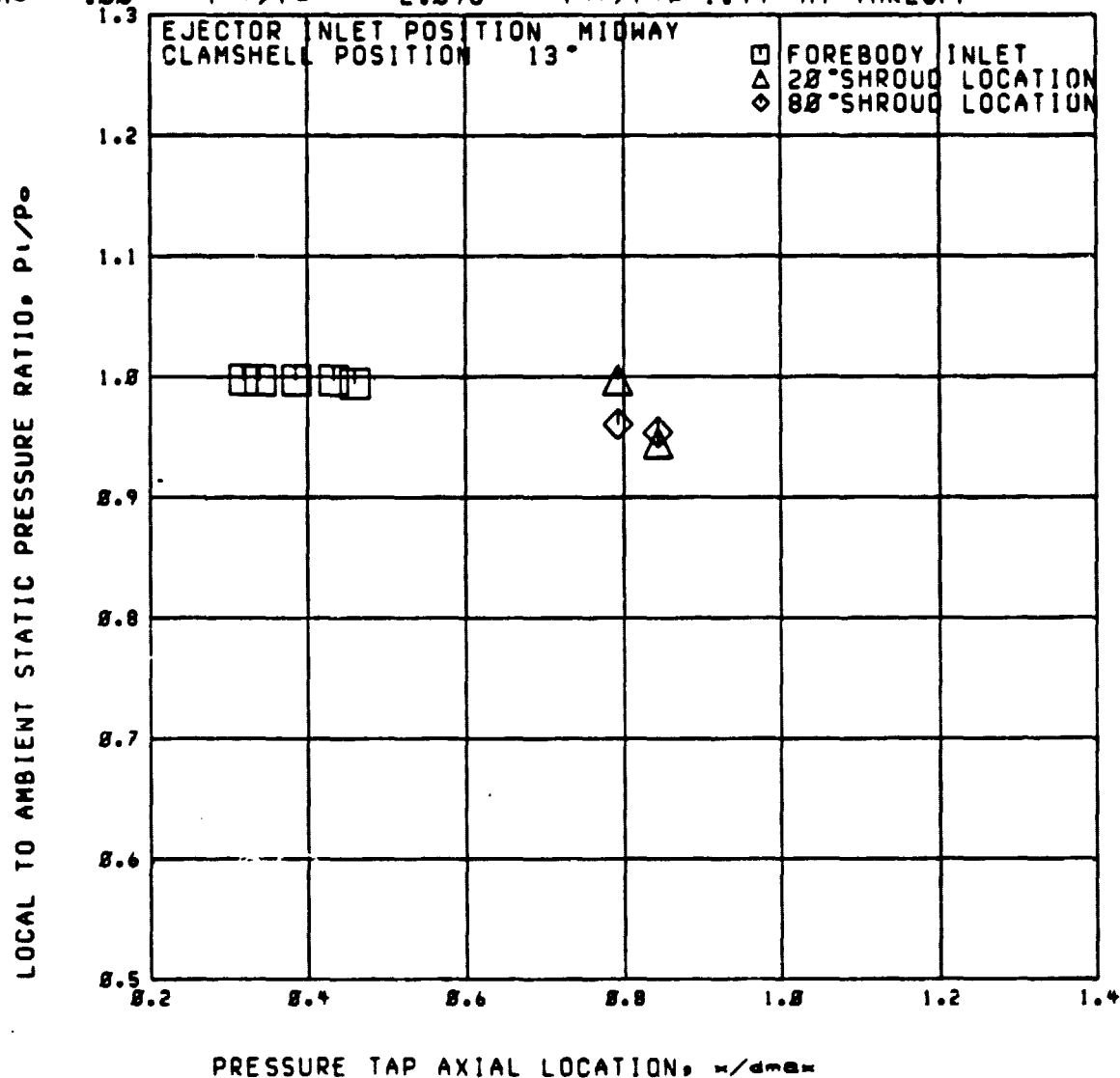
RUN 37

RDG=1985

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_\infty = -.88$   $P_{t0}/P_\infty = 2.898$   $P_{t0}/P_{t\infty} = 1.44$  AT TAKEOFF



ORIGINAL P...  
OF POC...

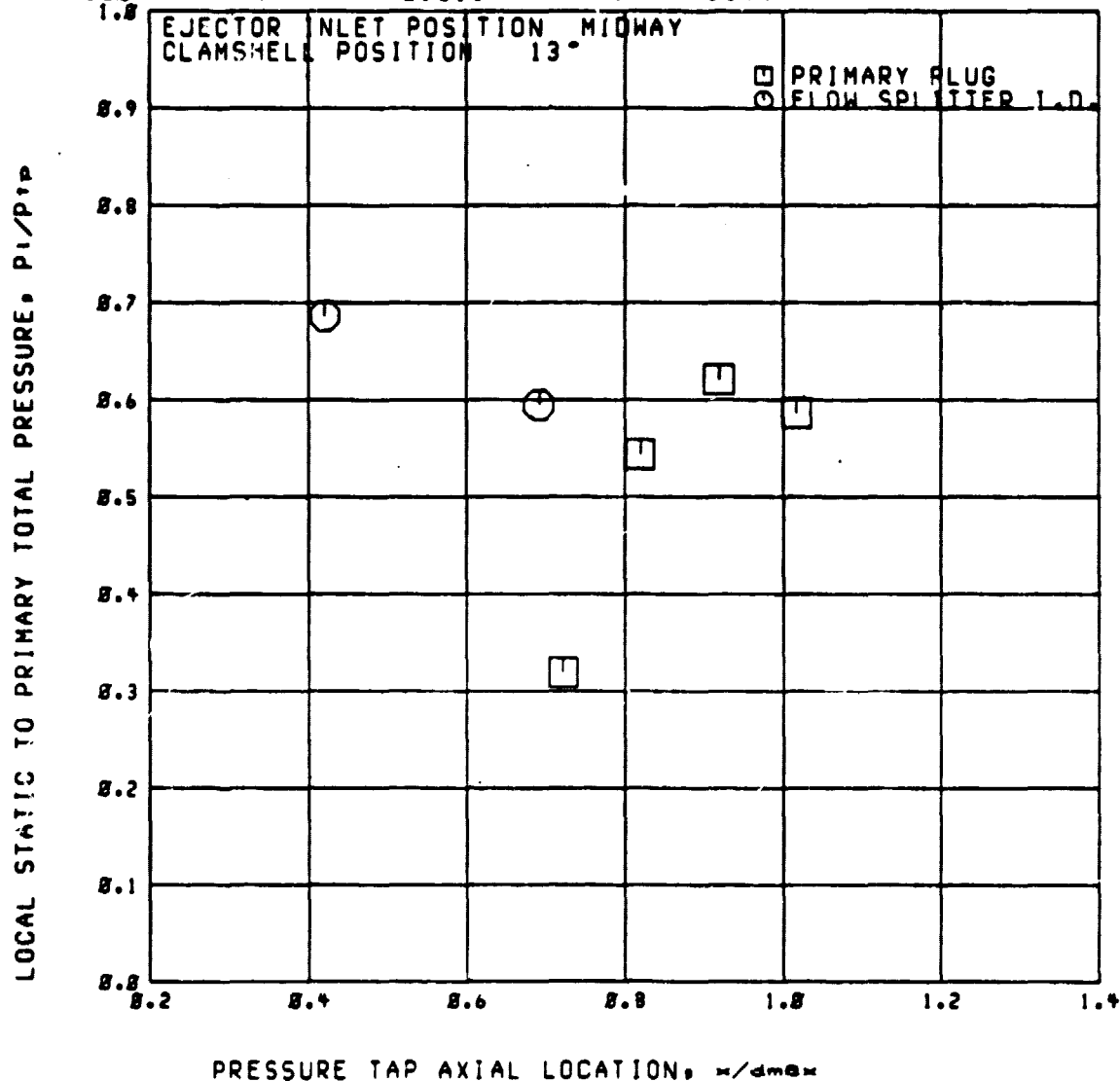
Run 37

A3

RDG=1986

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = -.88$   $P_{1C}/P_0 = 2.511$   $P_{1C}/P_{1D} = 1.44$





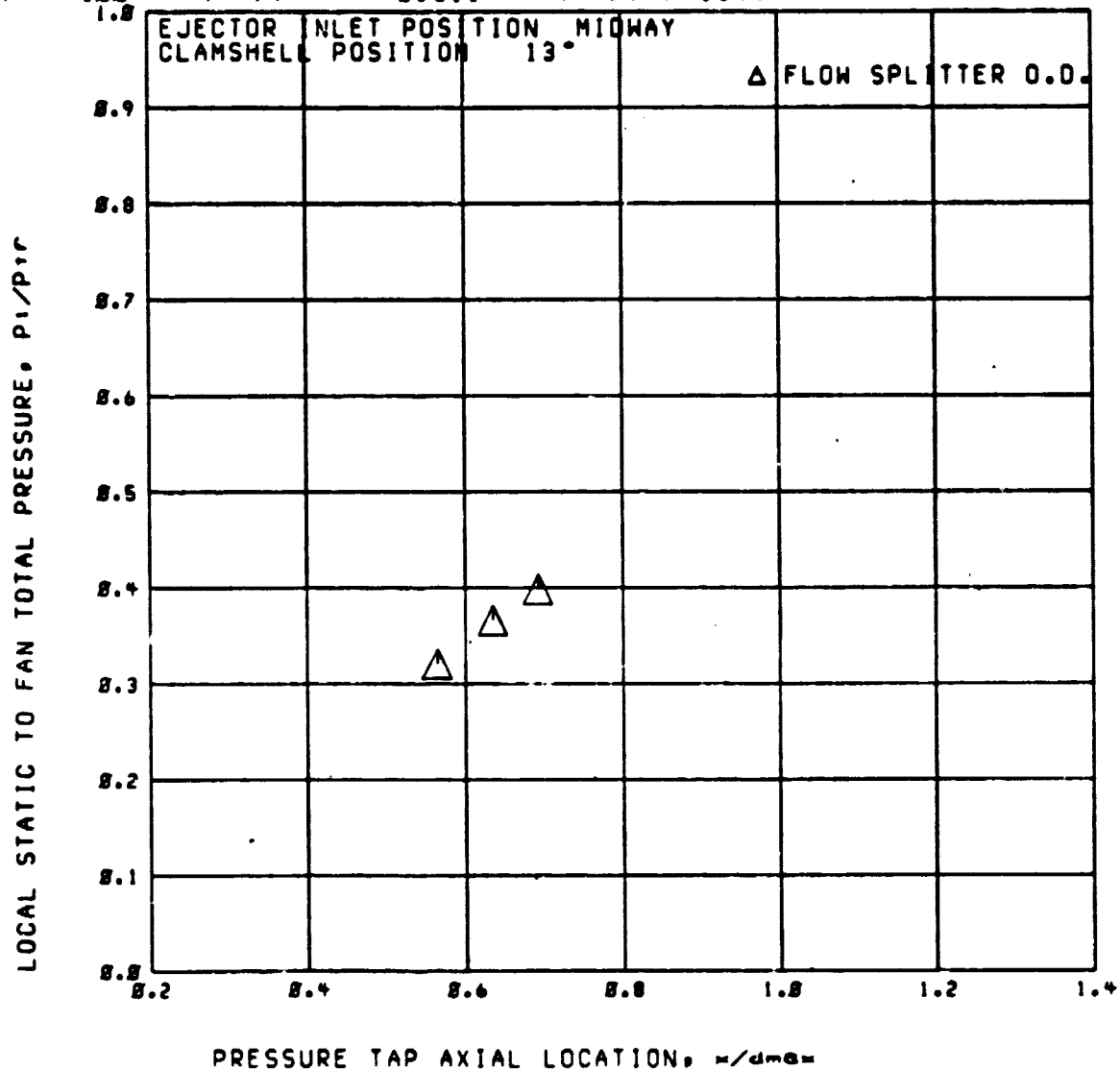
Run 37

A3

RDG=1986

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = -.08$   $P_{tr}/P_o = 2.511$   $P_{tr}/P_{tr} = 1.44$



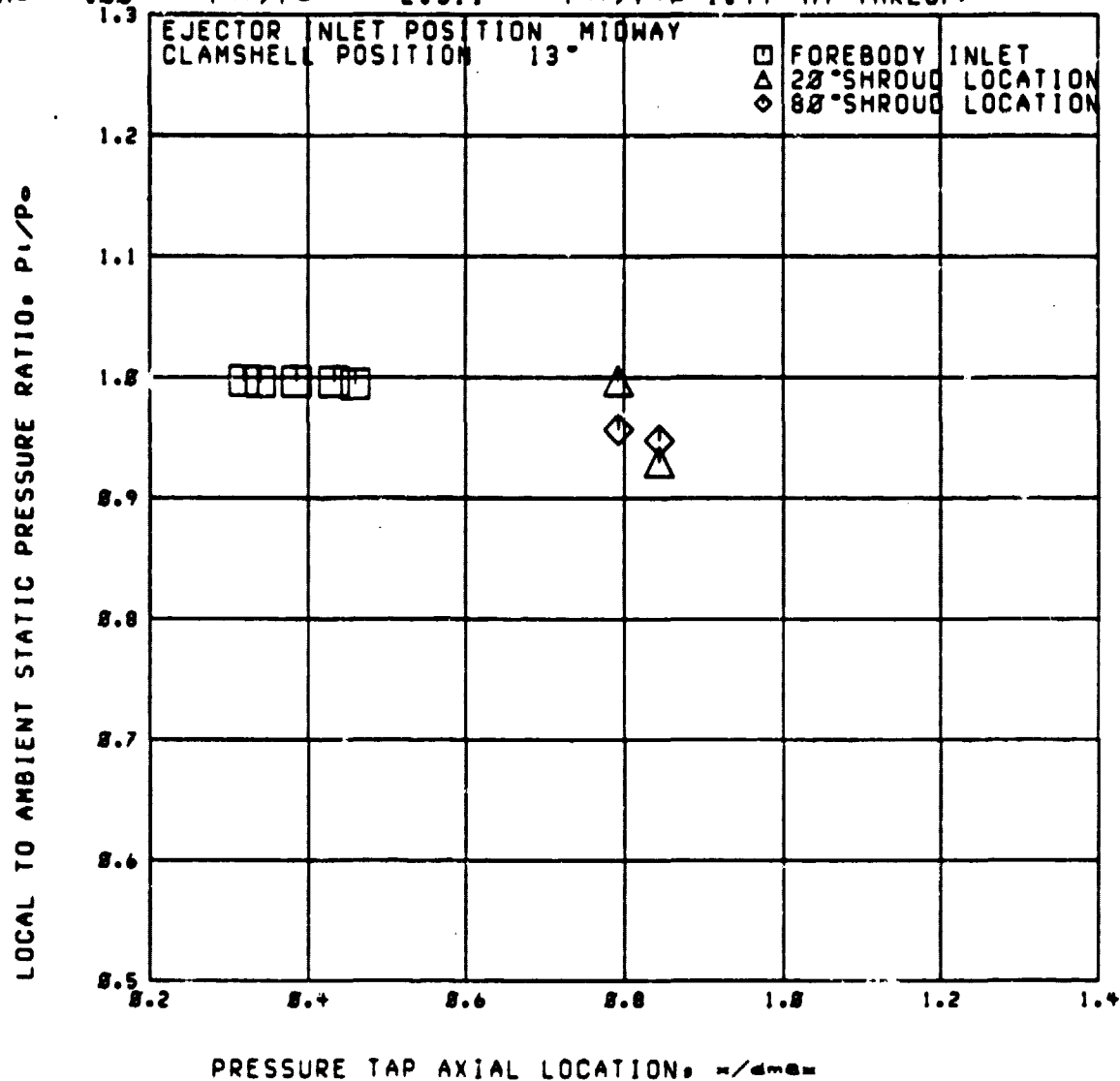
Run 37

RDG=1986

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

M = -.88 P<sub>tr</sub>/P<sub>∞</sub> = 2.511 P<sub>tr</sub>/P<sub>tr</sub> = 1.44 AT TAKEOFF



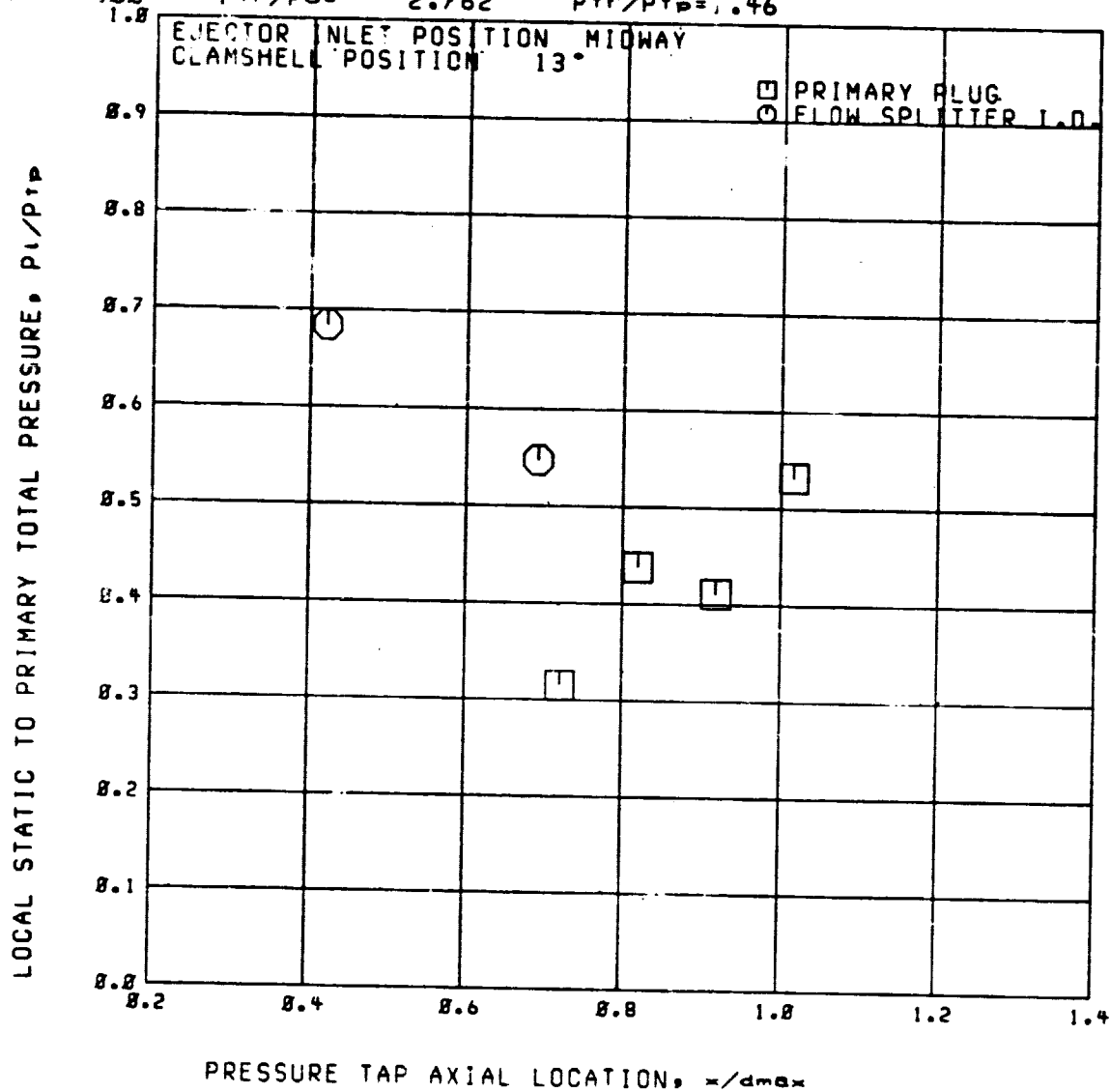
Run 37

A3

PDG=1987

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = -0.80$   $P_{tr}/P_0 = 2.762$   $P_{tr}/P_{tr} = 1.46$



Run 37

A3

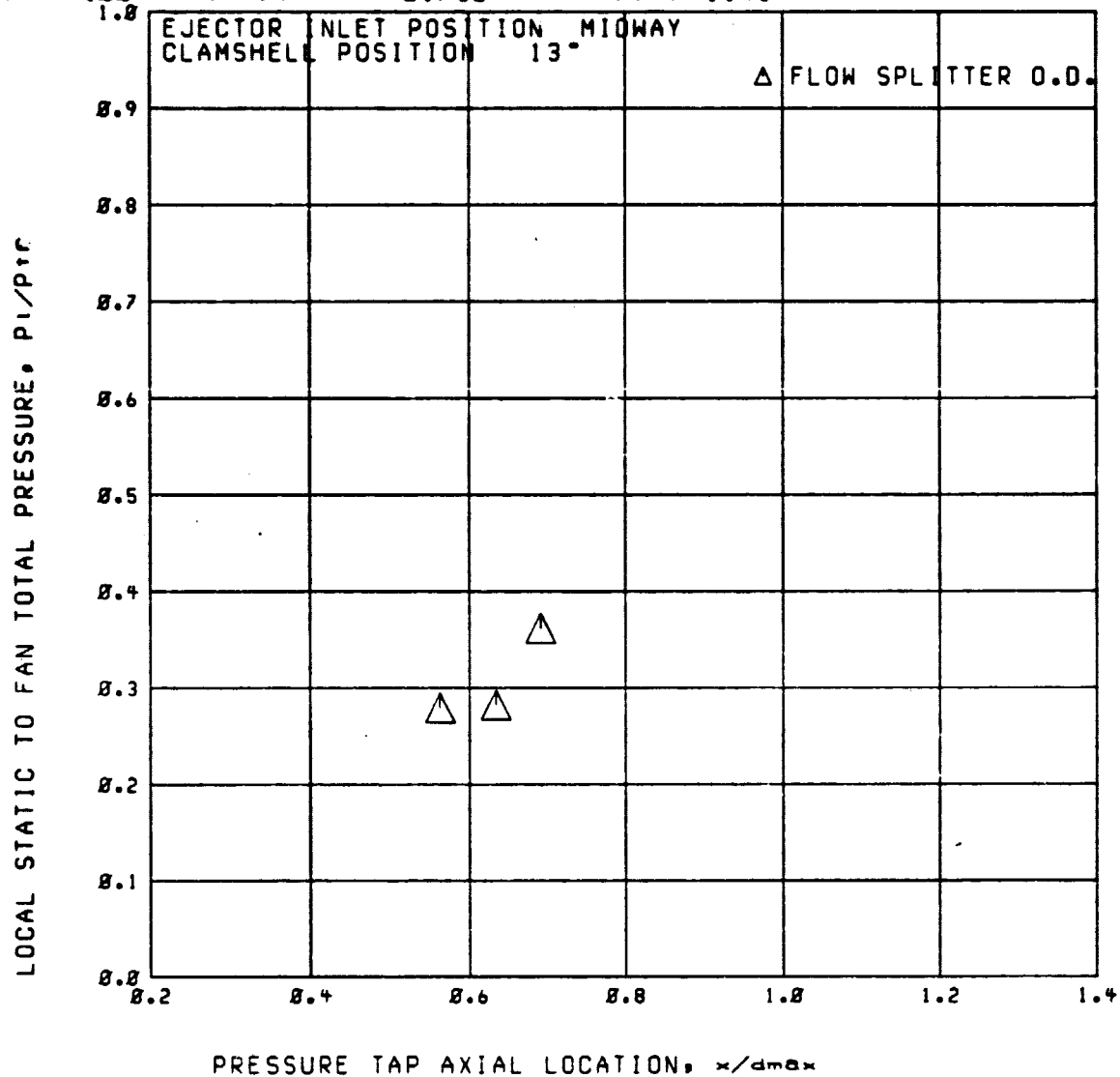
RDG=1987

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = -.00$

$P_{tr}/P_0 = 2.762$

$P_{tr}/P_{tp} = 1.46$



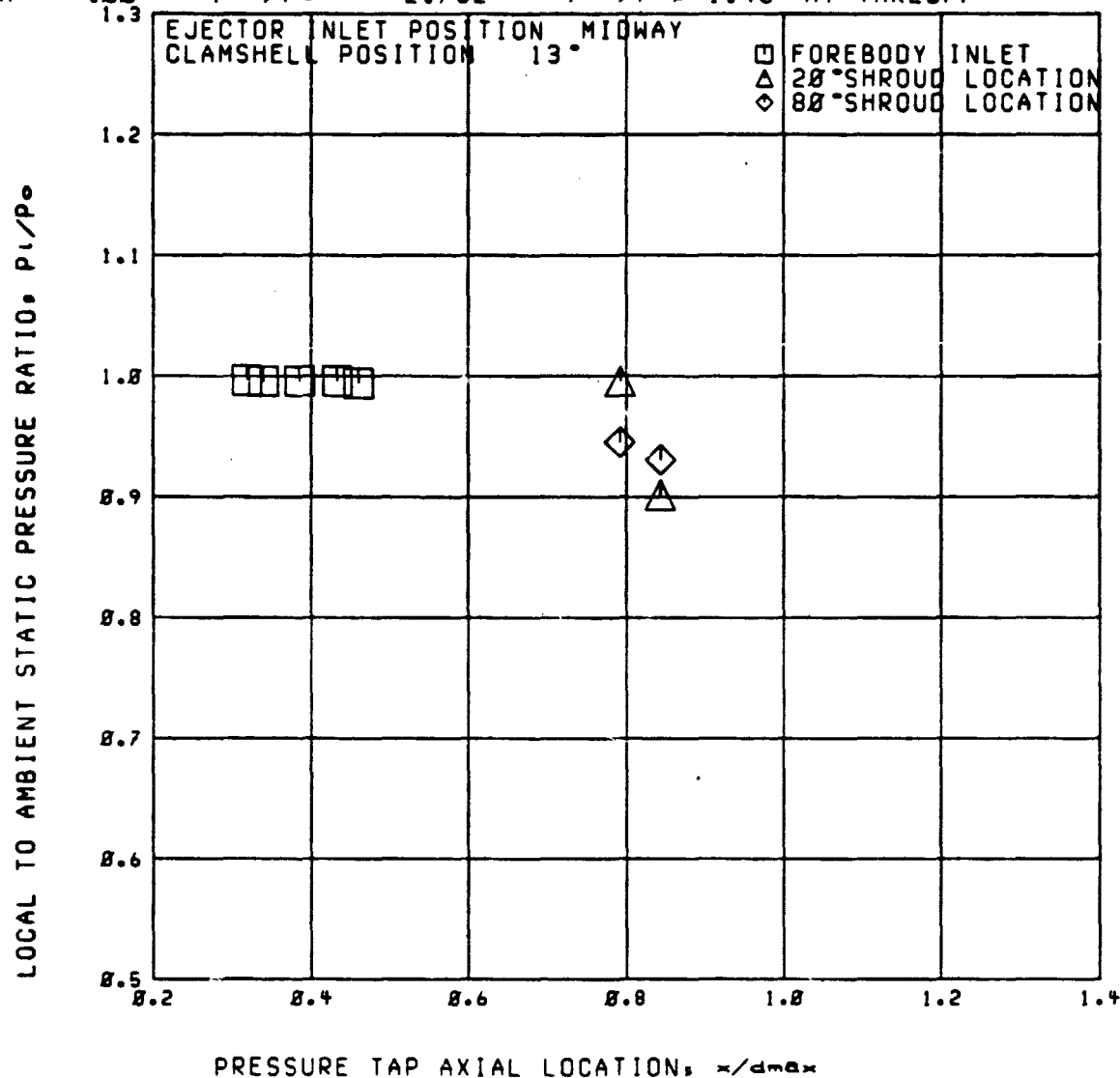
RUN 37

RDG-1987

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = -.88$   $P_{tr}/P_0 = 2.762$   $P_{tr}/P_{tr} = 1.46$  AT TAKEOFF



ORIGINAL PAGE  
OF POOR QUALITY

Run 37

A3

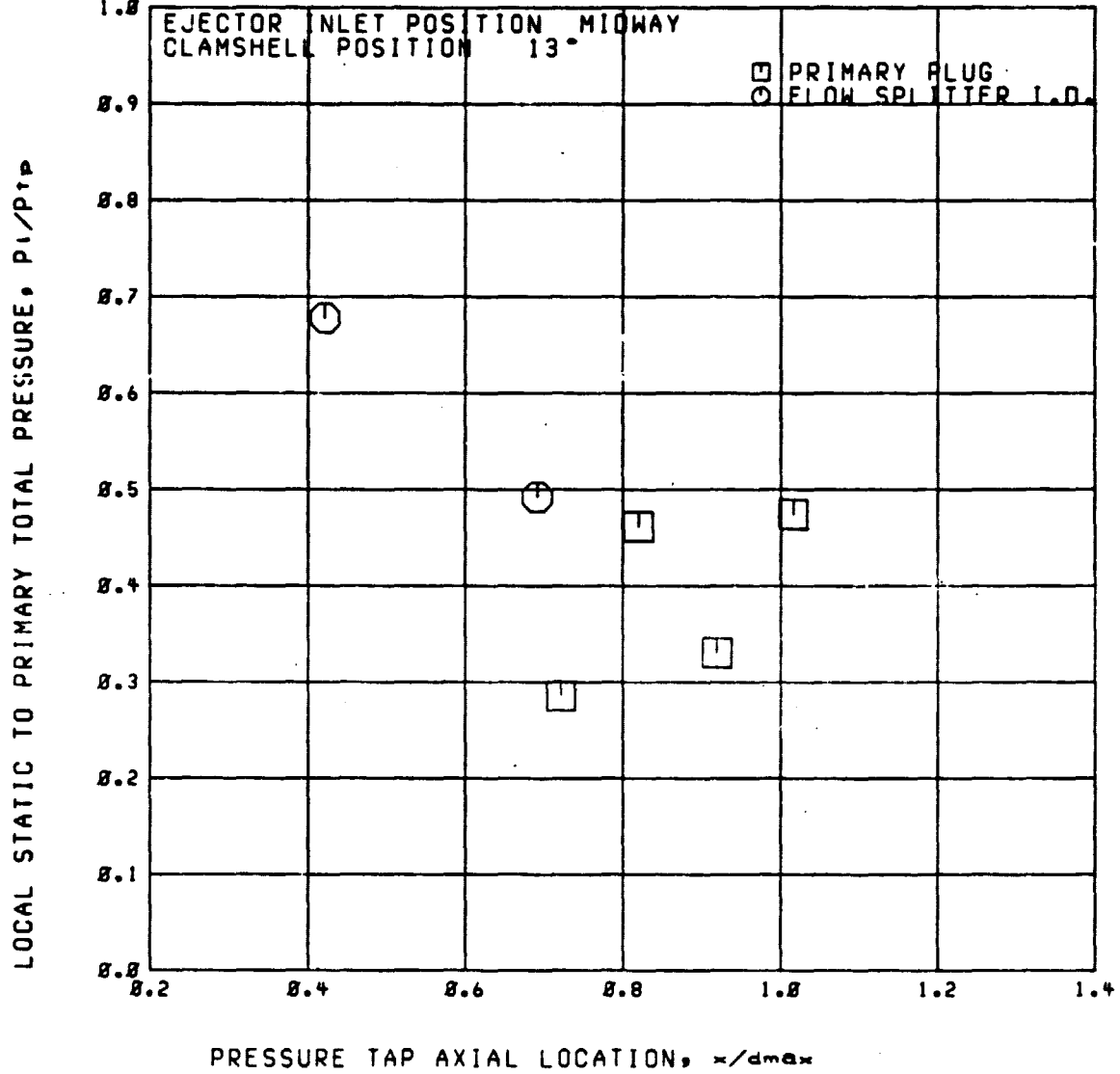
RDG=1988

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = -.88$

$P_{tr}/P_0 = 3.181$

$P_{tr}/P_{tp} = 1.47$



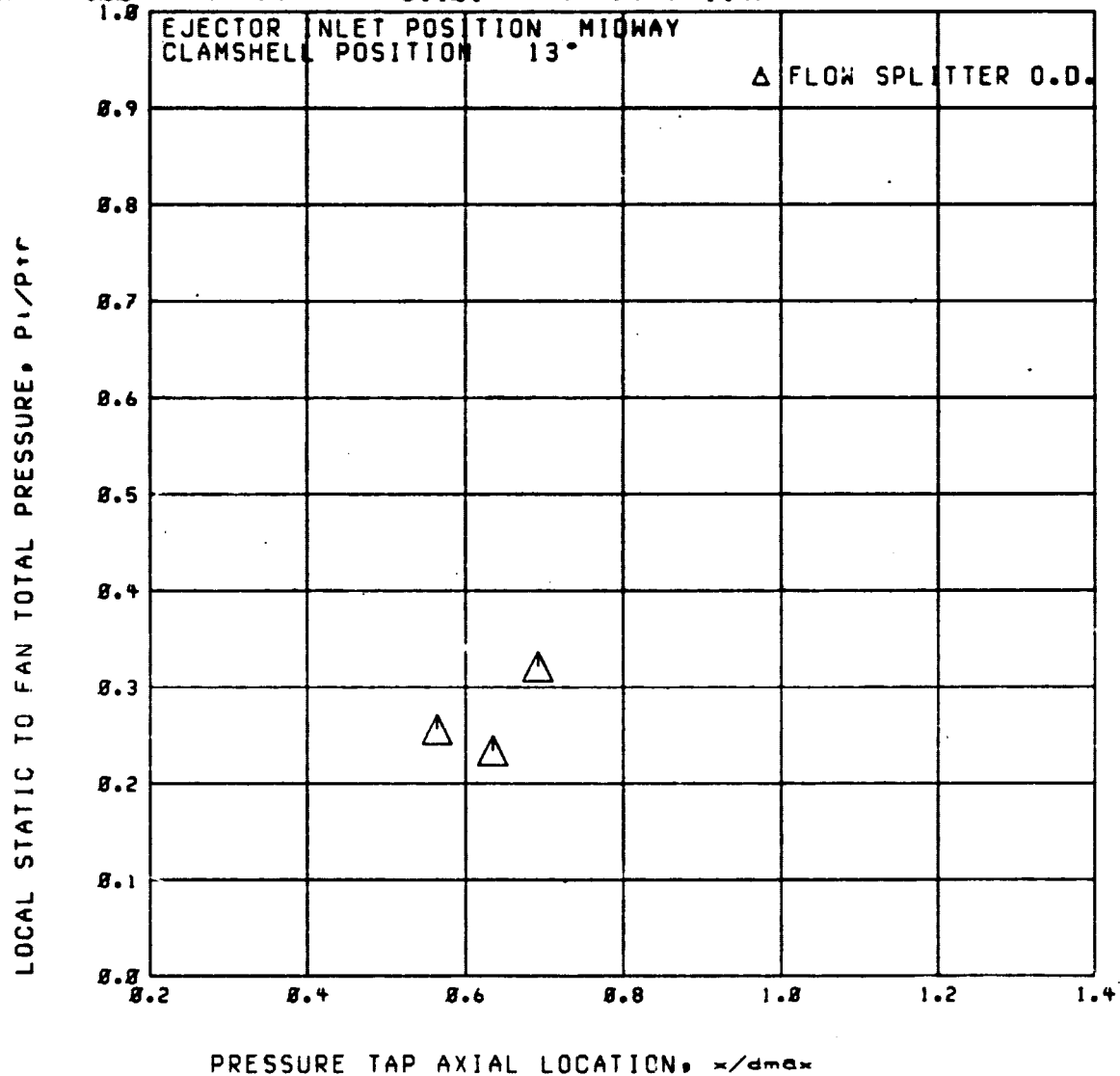
Run 37

A3

RDG=1988

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = -.88$   $P_{tr}/P_0 = 3.181$   $P_{tr}/P_{tp} = 1.47$



Run 37

RDG=1988

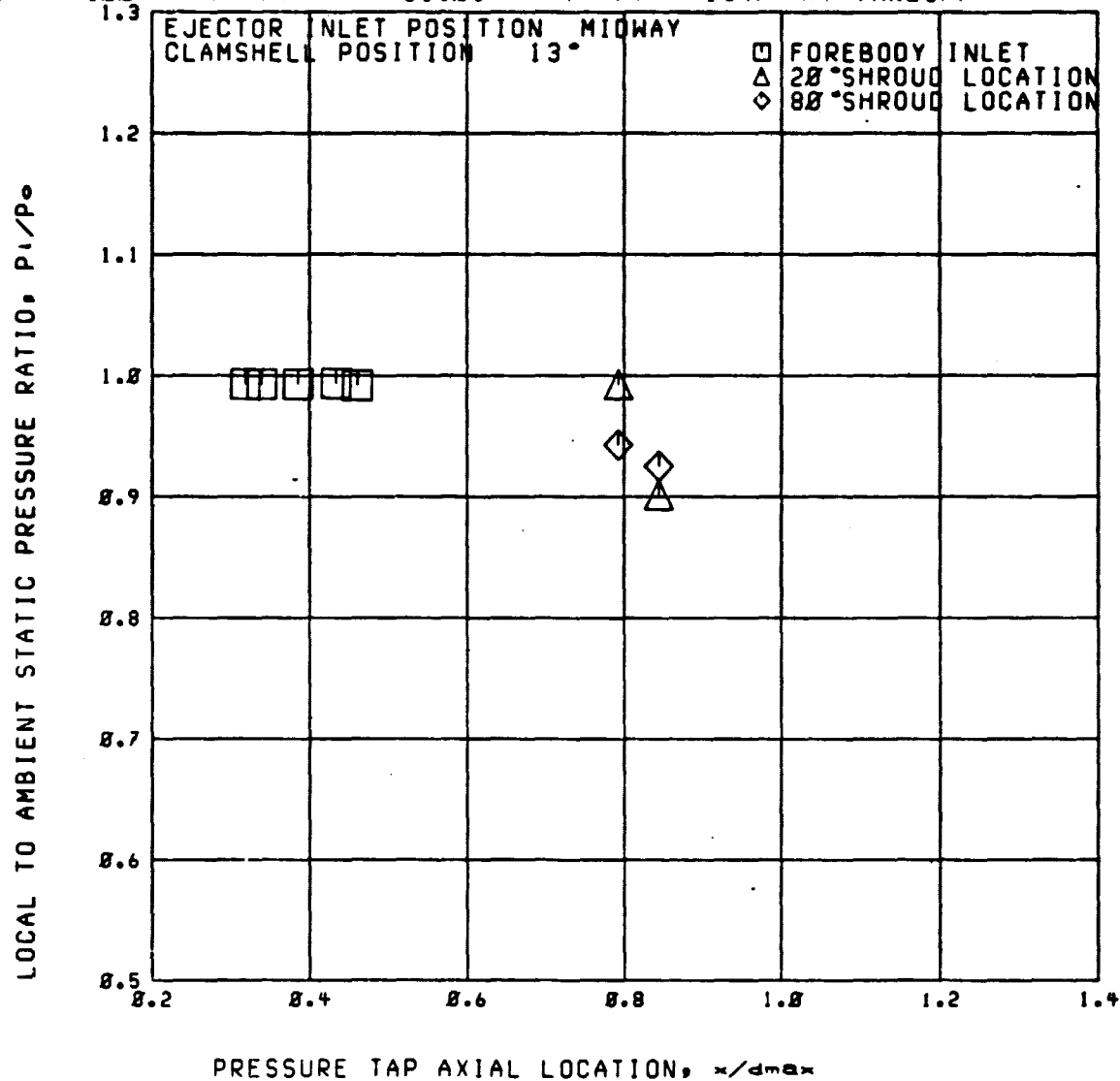
A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = -.88$

$P_{tr}/P_o = 3.181$

$P_{tr}/P_{tr} = 1.47$  AT TAKEOFF





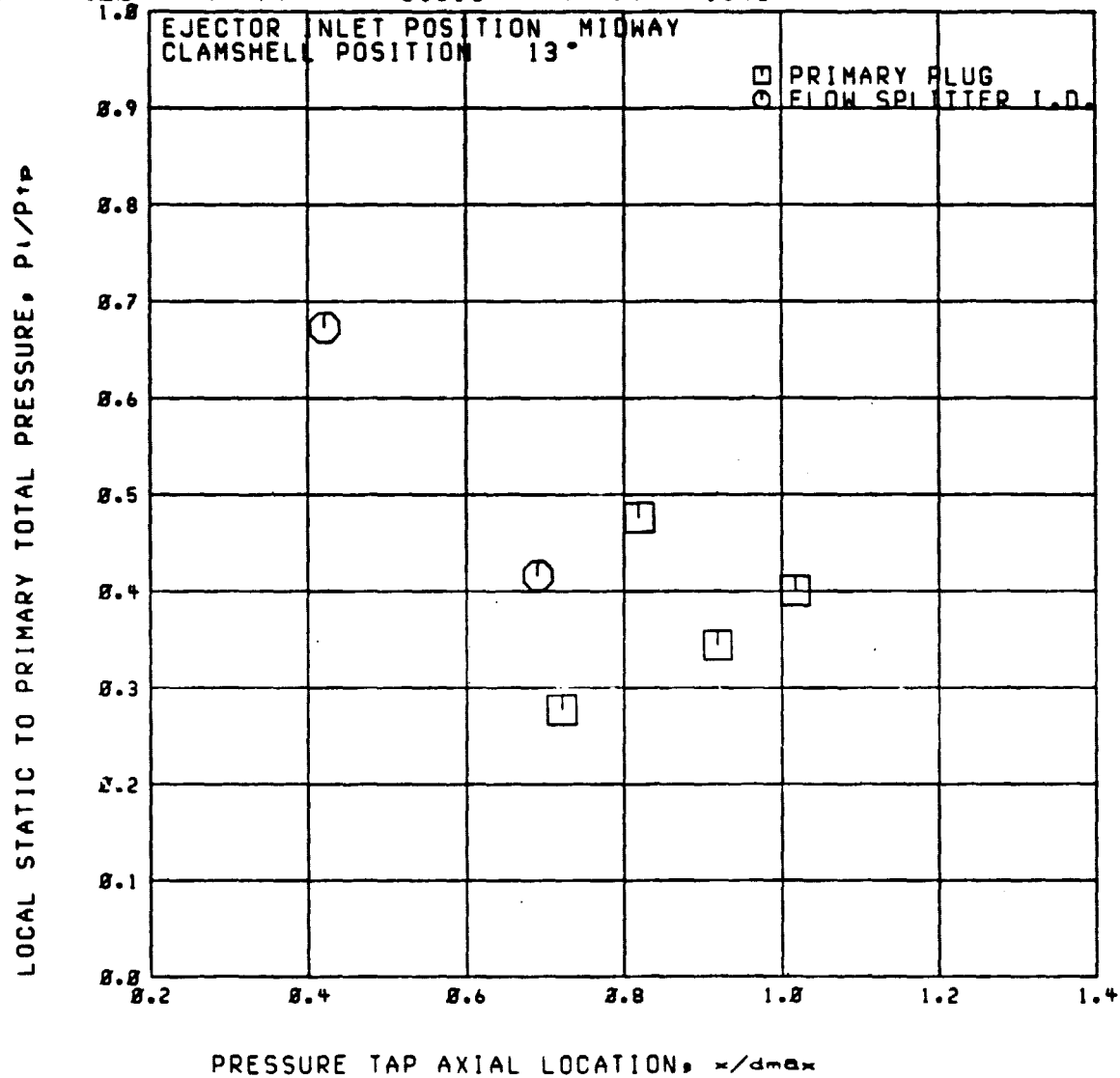
Run 37

A3

ROG=1989

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = -.88$   $P_{tr}/P_0 = 3.616$   $P_{tr}/P_{tp} = 1.45$



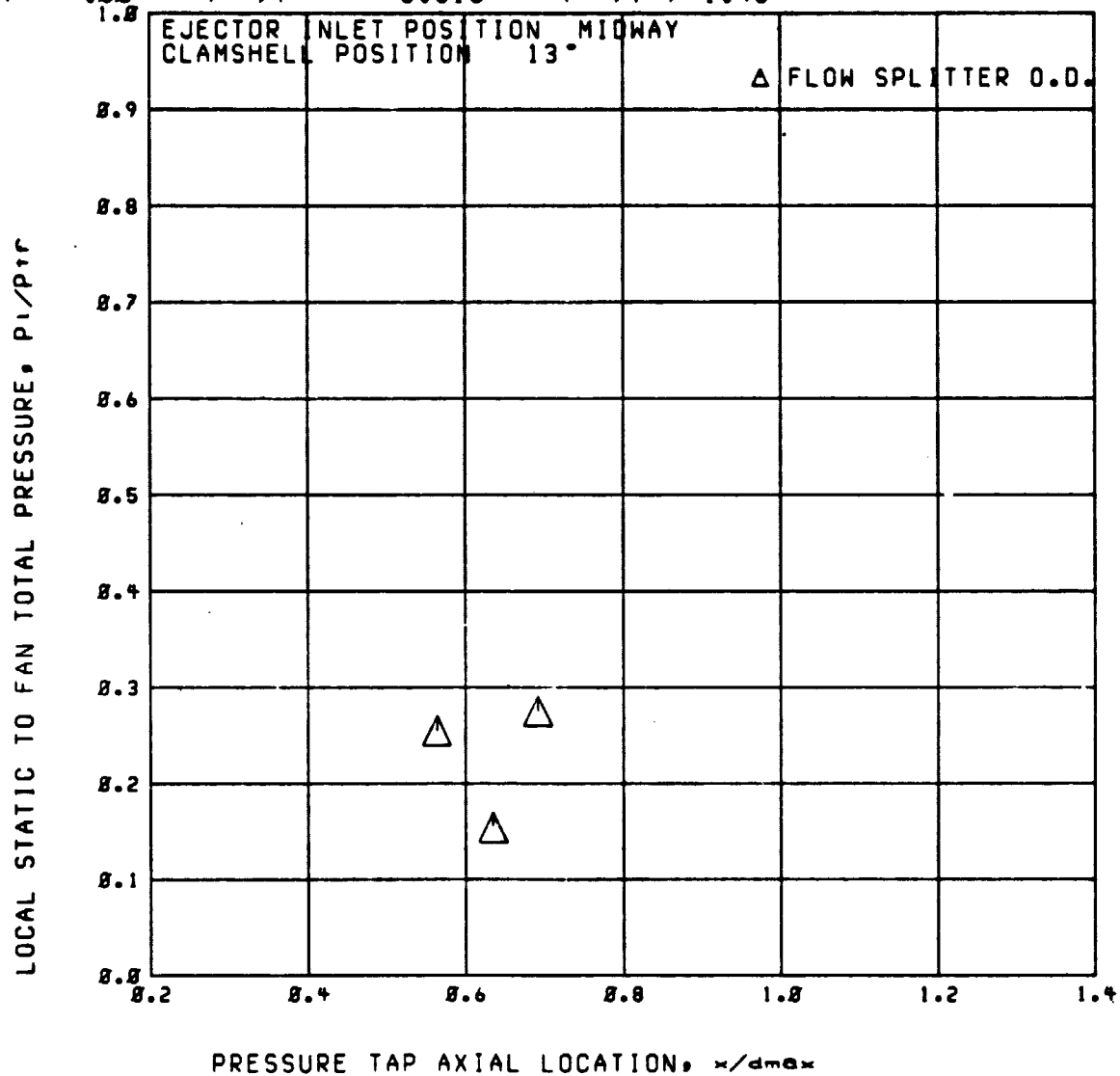
Run 37

A3

RDG=1989

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = -.88$   $P_{tr}/P_0 = 3.616$   $P_{tr}/P_{tp} = 1.45$



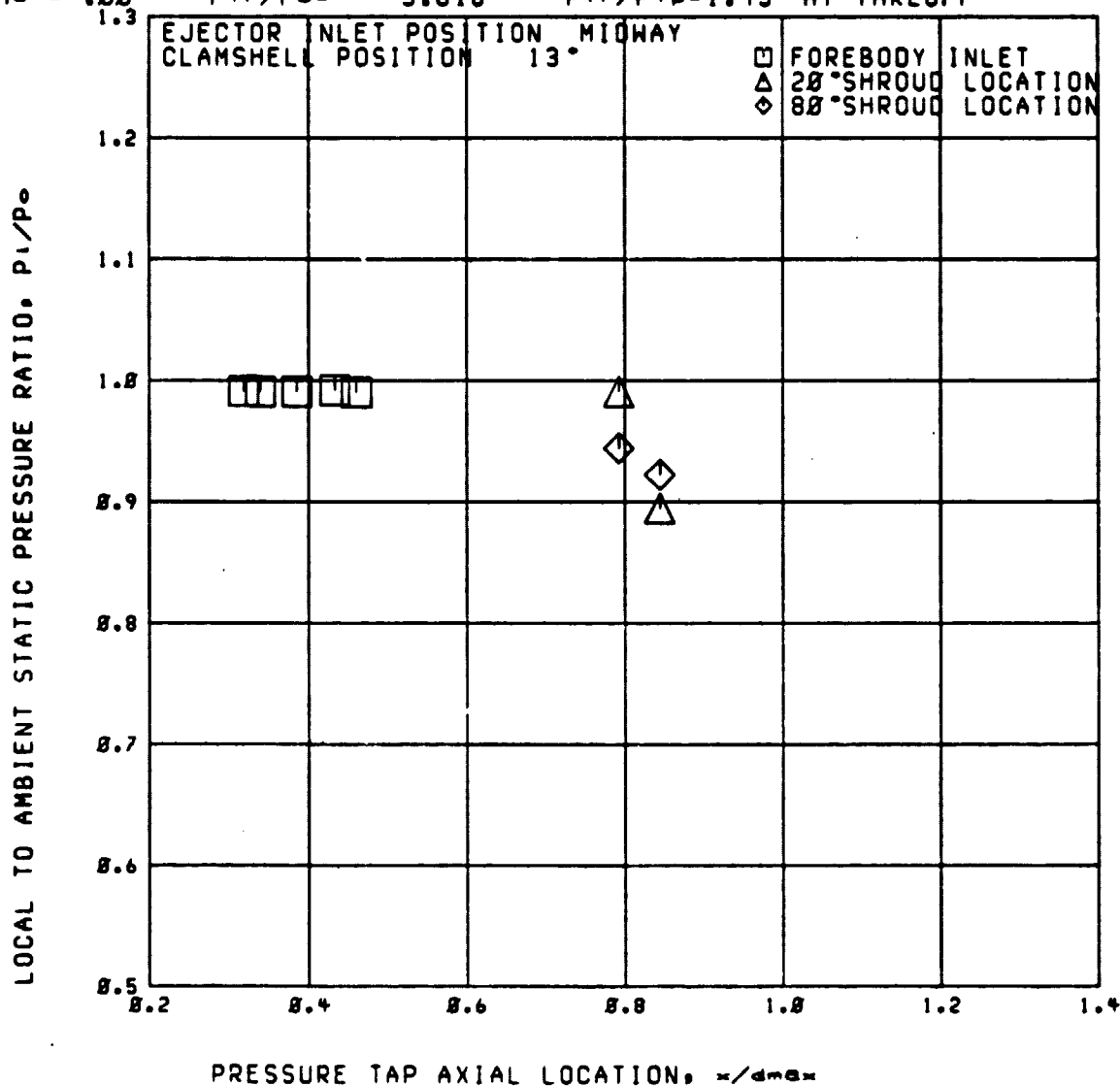
Run 37

RDG=1989

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = -.88$   $P_{tr}/P_0 = 3.616$   $P_{tr}/P_{tr} = 1.45$  AT TAKEOFF



ORIGINAL FILE

Run 37

A3

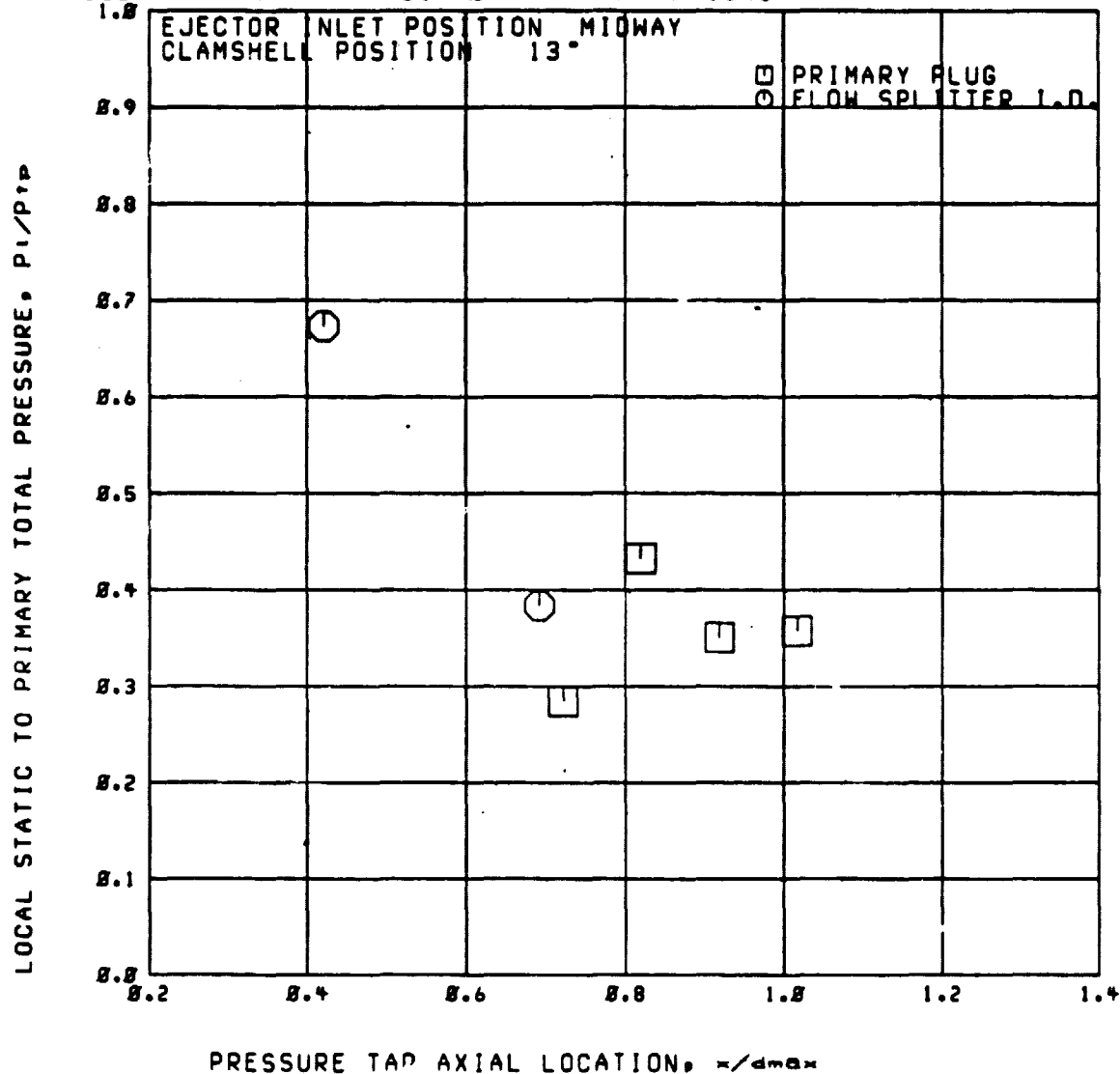
RDG=1990

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = -.00$

$P_{tr}/P_o = 3.940$

$P_{tr}/P_{tp} = 1.45$



Run 37

A3

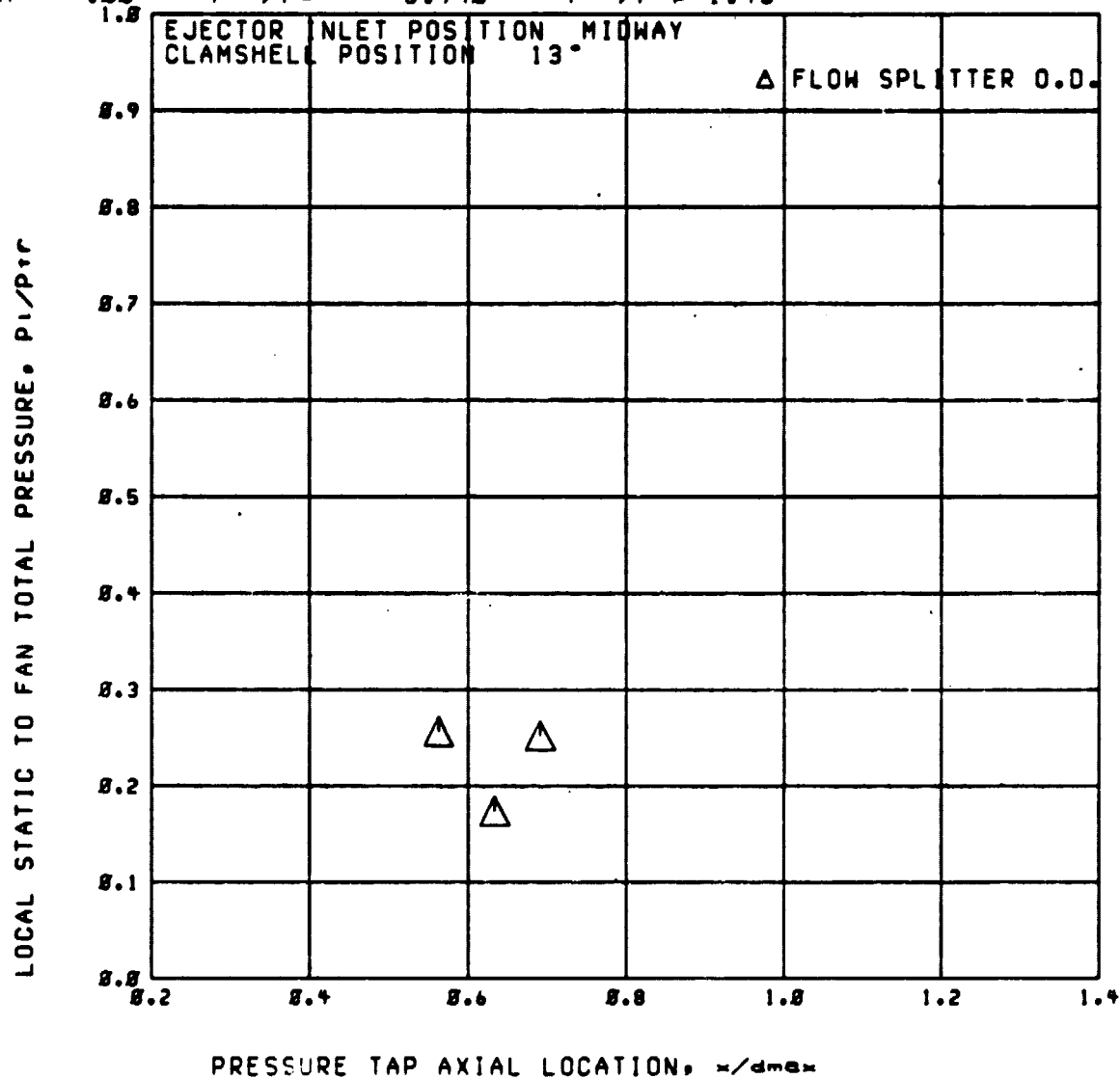
RDG=1998

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = -.88$

$P_{tr}/P_0 = 3.948$

$P_{tr}/P_{tp} = 1.45$



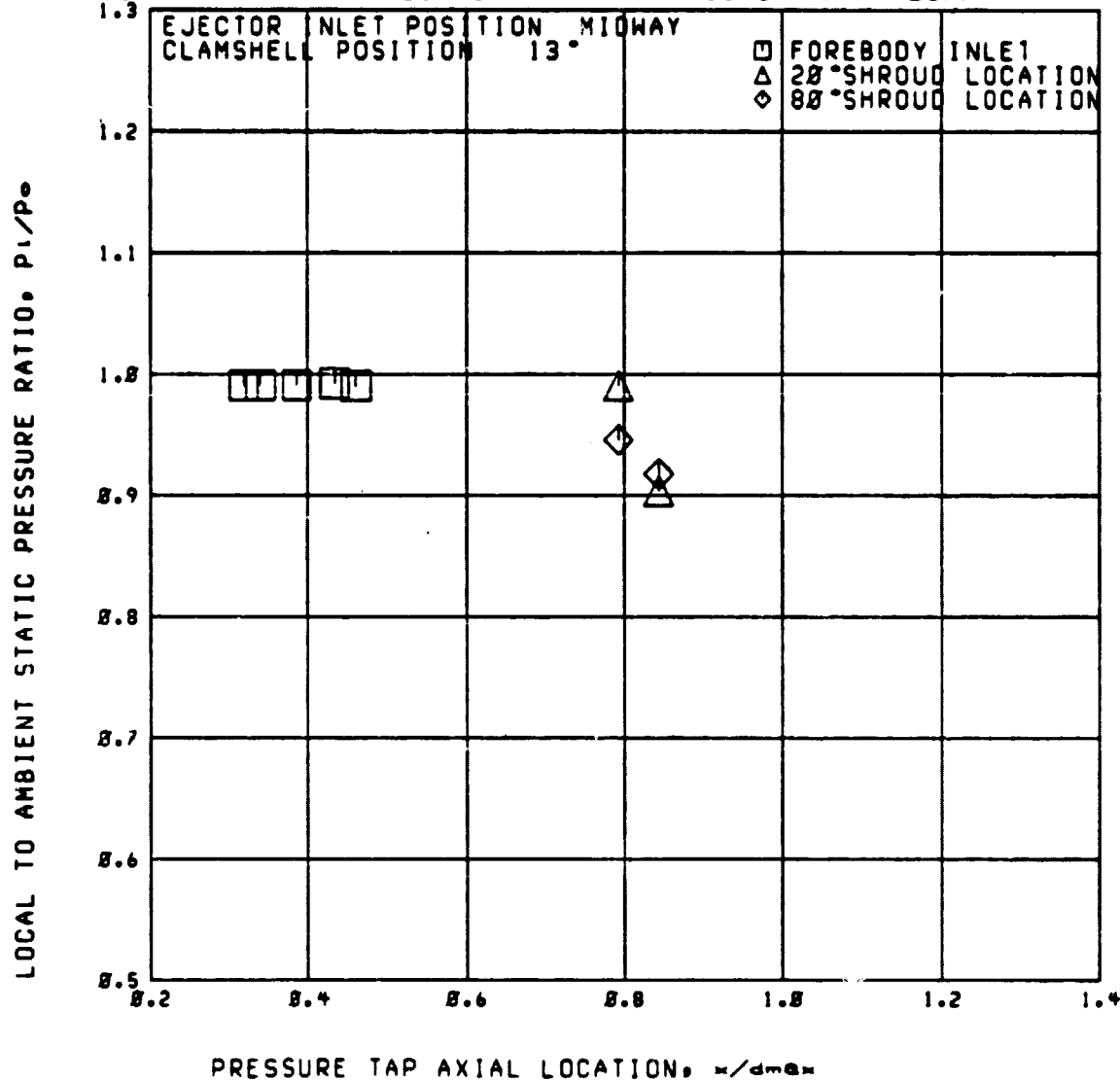
Run 37

RDG=1998

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

M = -.88  $P_{t0}/P_{\infty} = 3.948$   $P_{t0}/P_{t*} = 1.45$  AT TAKEOFF

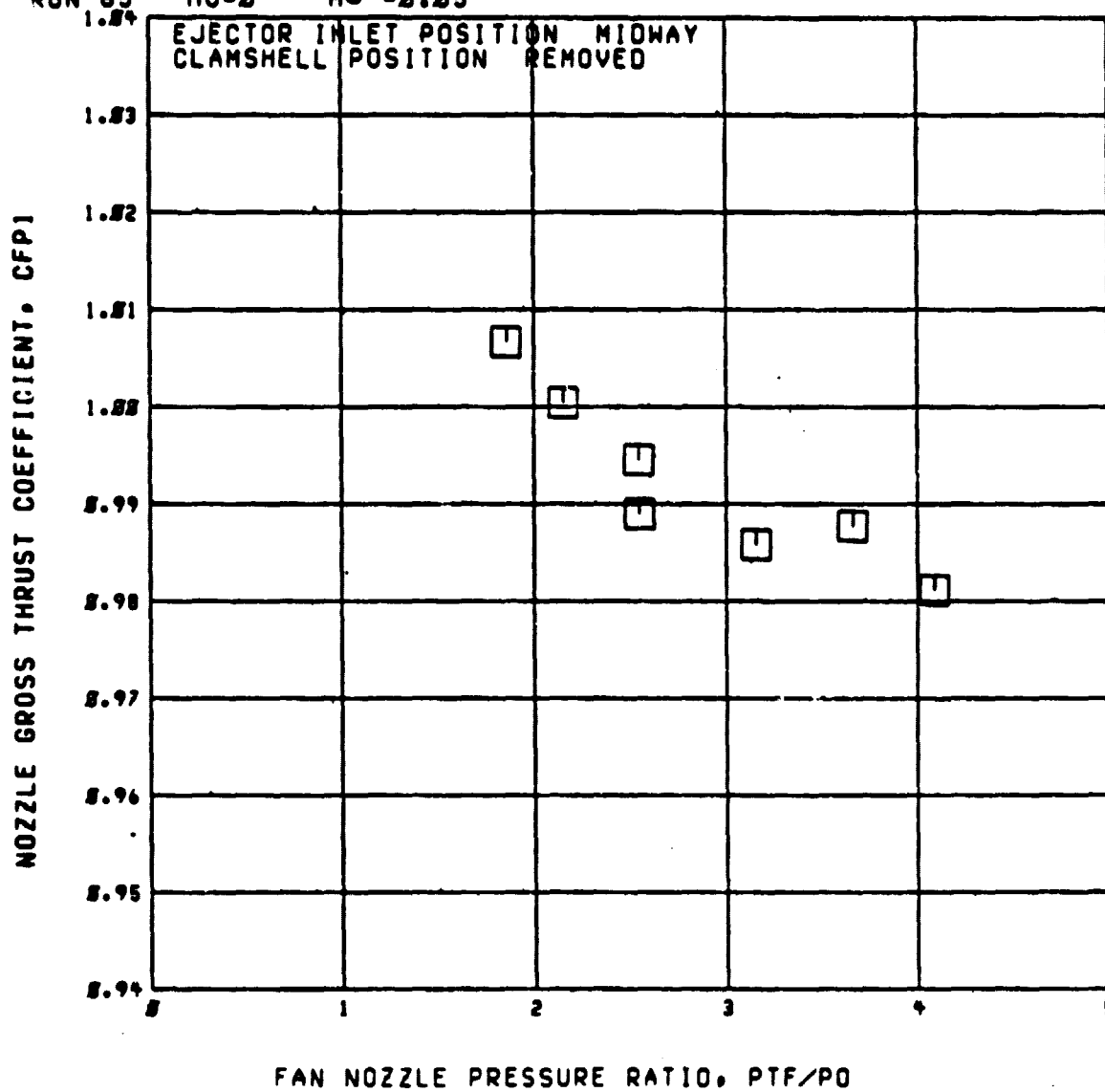


RDG. 2873-2879

A3  
TAKEOFF

$P_{tC}/P_{tP} = \square = 1.46$

RUN 65  $M_0 = 8$   $M = 8.85$



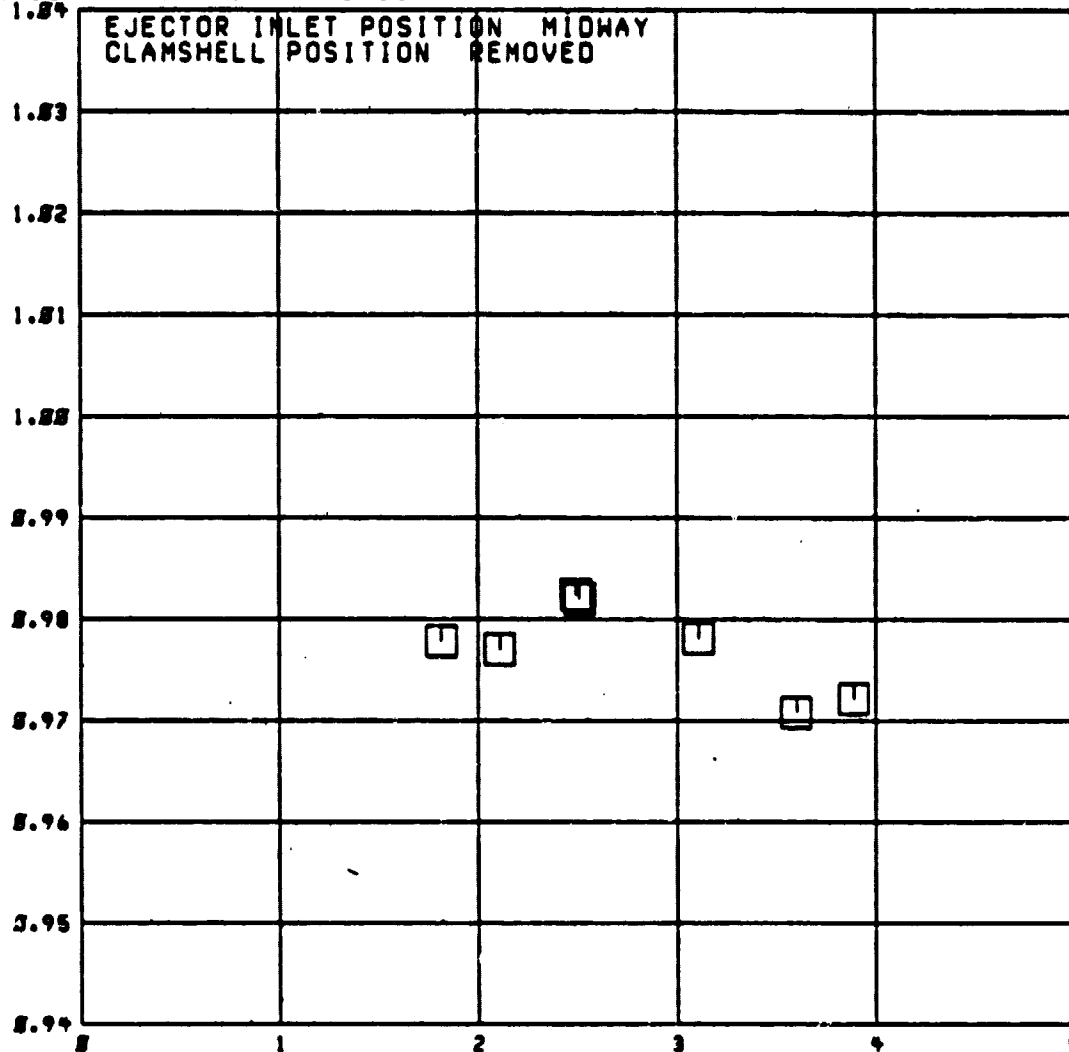
RDG. 2887-2893

A3  
TAKEOFF  
RUN 65

MO=8.3 M= -8.36

$P_{tF}/P_{tD} = \square = 1.46$

NOZZLE GROSS THRUST COEFFICIENT, CFPI



FAN NOZZLE PRESSURE RATIO, PTF/PO



RDG, 2873-2879

A3

TAKEOFF

$P_{tC}/P_{tD} = \square = 1.46$

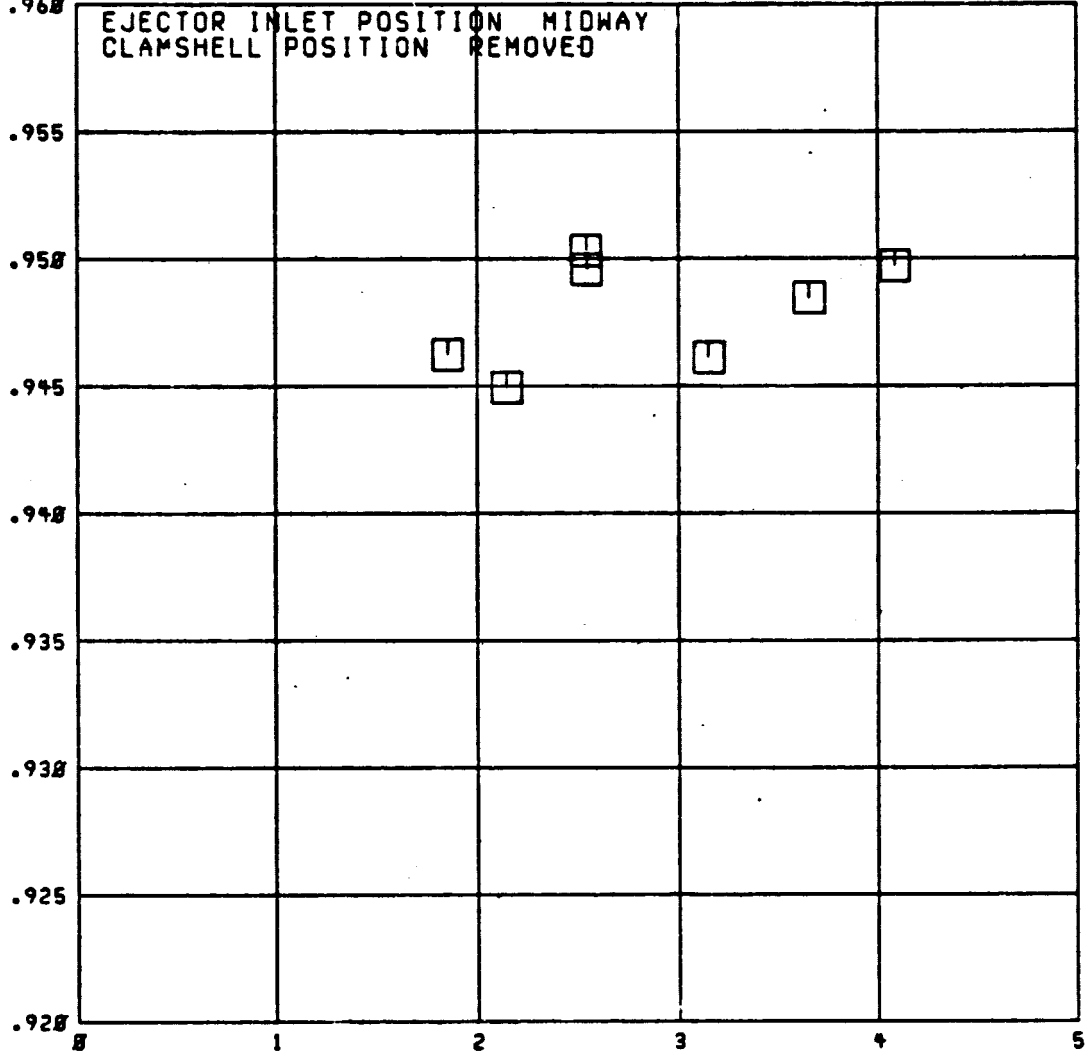
RUN 65  
.968

$M_0 = 0$

$M_0 = 0.85$

EJECTOR INLET POSITION MIDWAY  
CLAMSHELL POSITION REMOVED

FAN-NOZZLE FLOW COEFFICIENT, CDF



FAN NOZZLE PRESSURE RATIO,  $PTF/PO$

ROG. 2887-2893

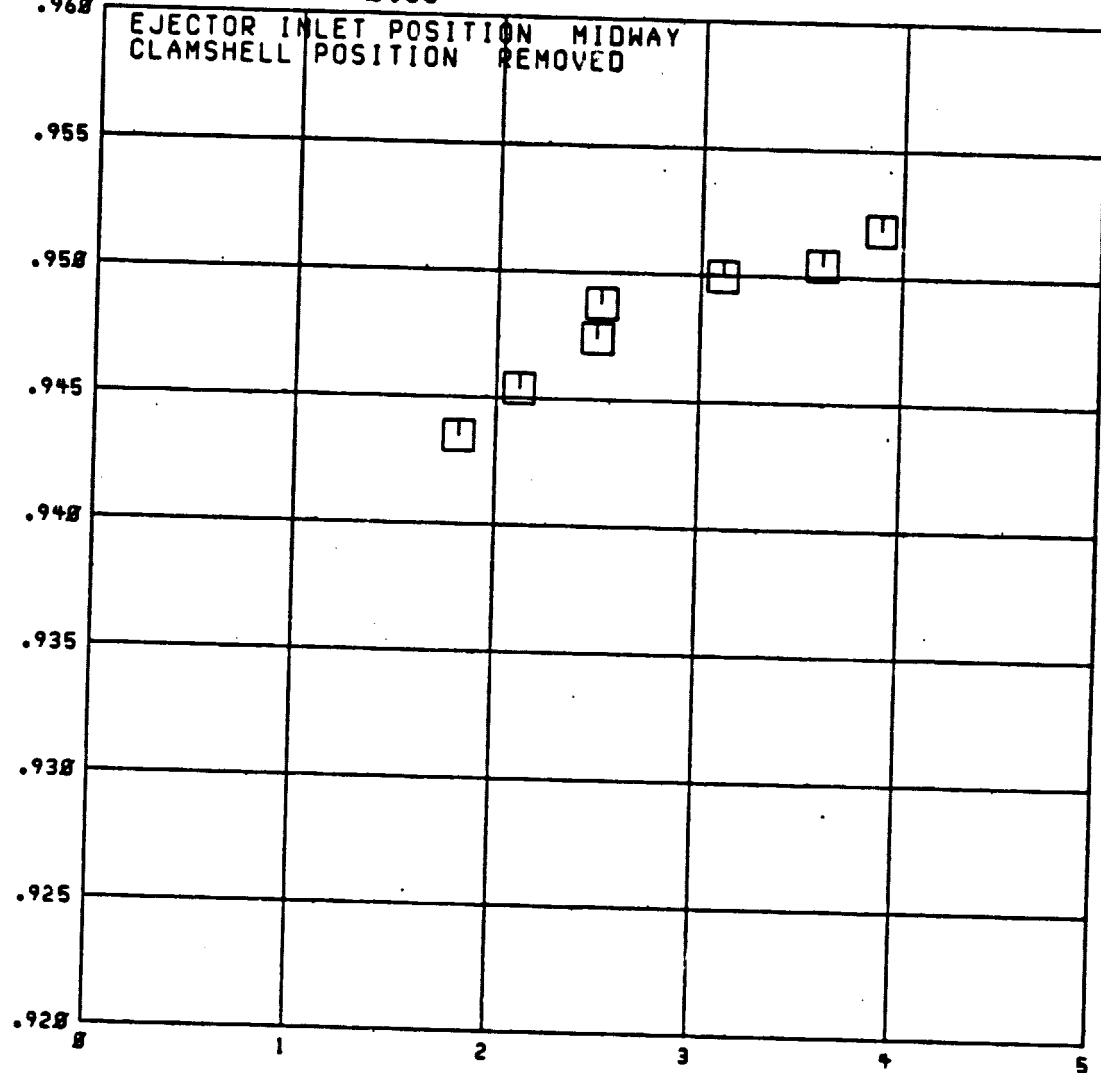
A3  
TAKEOFF

$P_{tr}/P_{tp} = \square = 1.46$

RUN 65  
.968

$M_0 = 0.3$   $M_e = 0.36$

FAN-NOZZLE FLOW COEFFICIENT, CDF



FAN NOZZLE PRESSURE RATIO,  $P_{TF}/P_0$

RDG. 2873-2879

A3

TAKEOFF

$P_{t2}/P_{t1} = \square = 1.46$

RUN 65

$M_0 = 0$

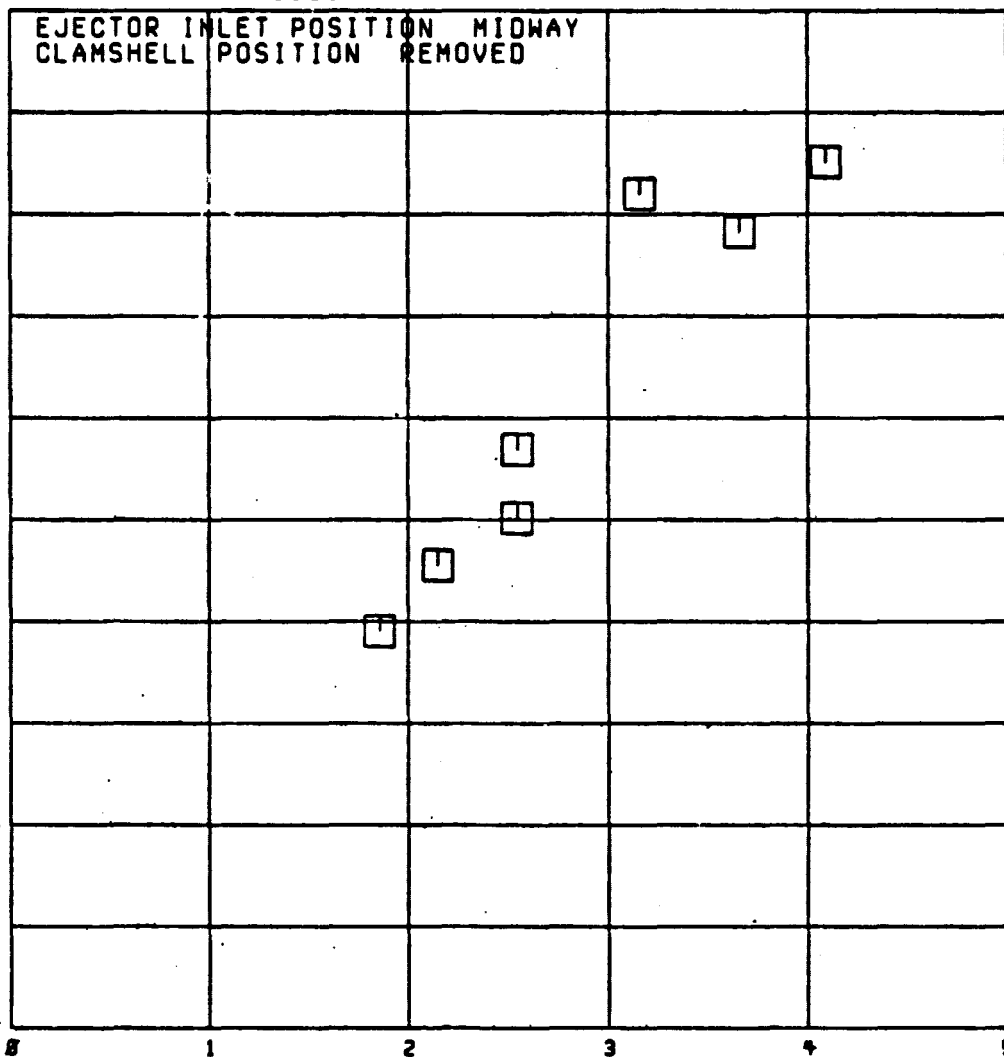
$M_e = 0.85$

1.88

EJECTOR INLET POSITION MIDWAY  
CLAMHELL POSITION REMOVED

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP

0.98  
0.96  
0.94  
0.92  
0.90  
0.88  
0.86  
0.84  
0.82  
0.80



FAN NOZZLE PRESSURE RATIO, PTF/PO

ROG, 2887-2893

A3

TAKEOFF

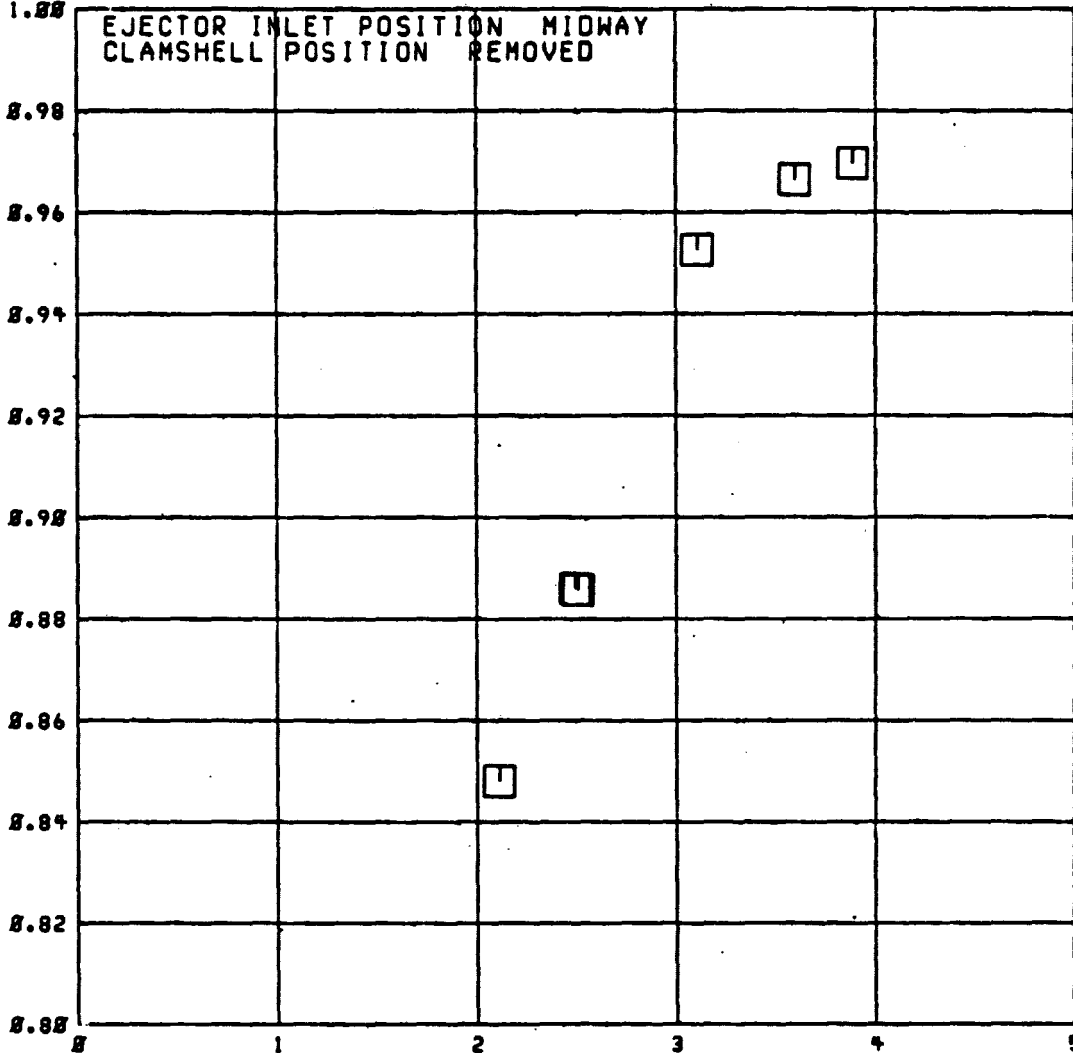
$P_{tC}/P_{tD} = \square = 1.46$

RUN 65

$M_0 = 0.3$   $M_e = 0.36$

1.00

PRIMARY-NOZZLE FLOW COEFFICIENT, CDP



FAN NOZZLE PRESSURE RATIO, PTF/PO

RUN 65

A3

RDG=2873

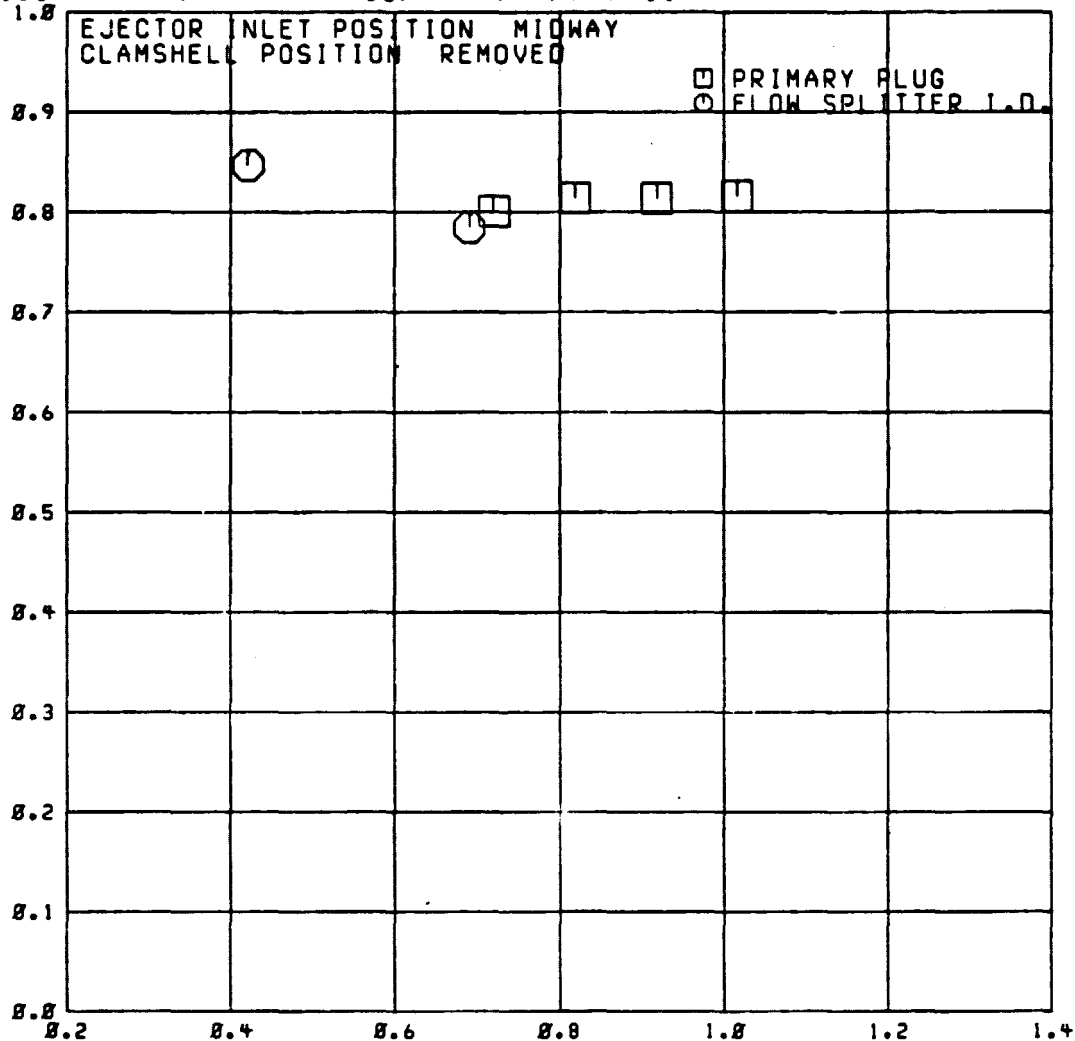
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.83$

$P_{tr}/P_0 = 1.857$

$P_{tr}/P_{tp} = 1.47$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_i/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

RUN 65

RDG=2873

A3

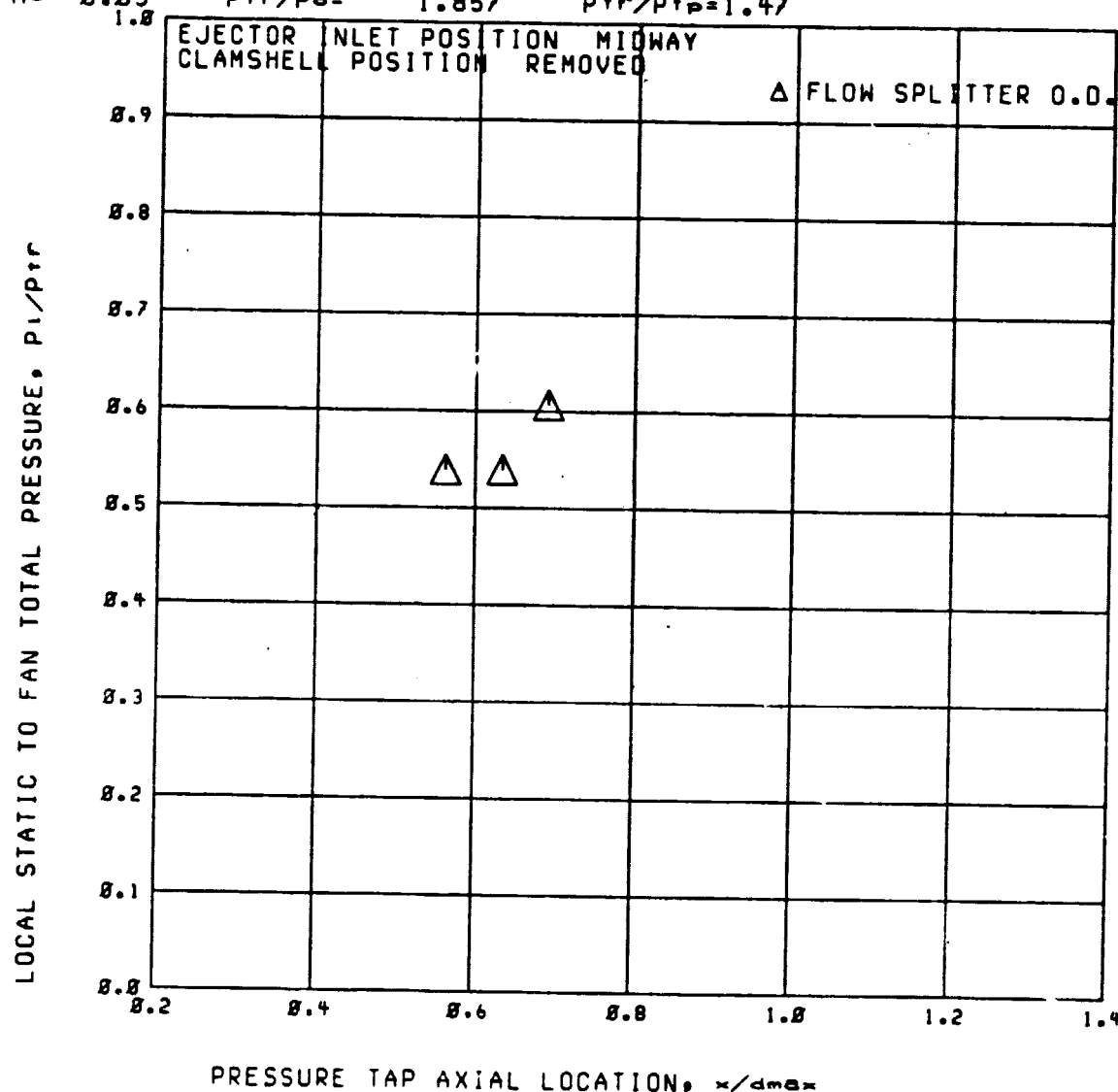
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.83$

$P_{tr}/P_0 =$

1.857

$P_{tr}/P_{tp} = 1.47$



ORIGINAL FILED IN  
ATTC 60-10-1077

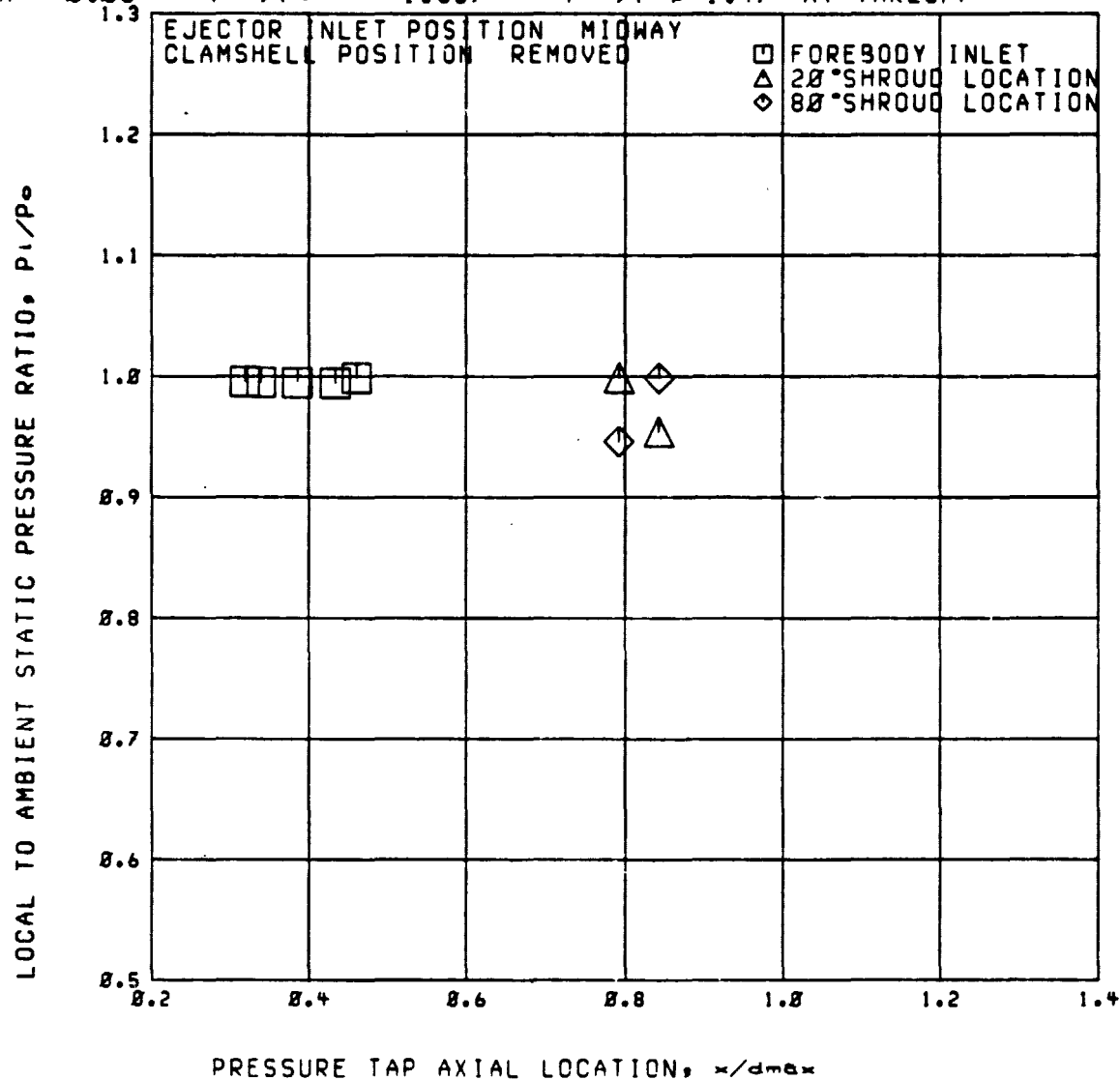
Run 65

RDG=2873

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.83$   $P_{ir}/P_0 = 1.857$   $P_{ir}/P_{ip} = 1.47$  AT TAKEOFF



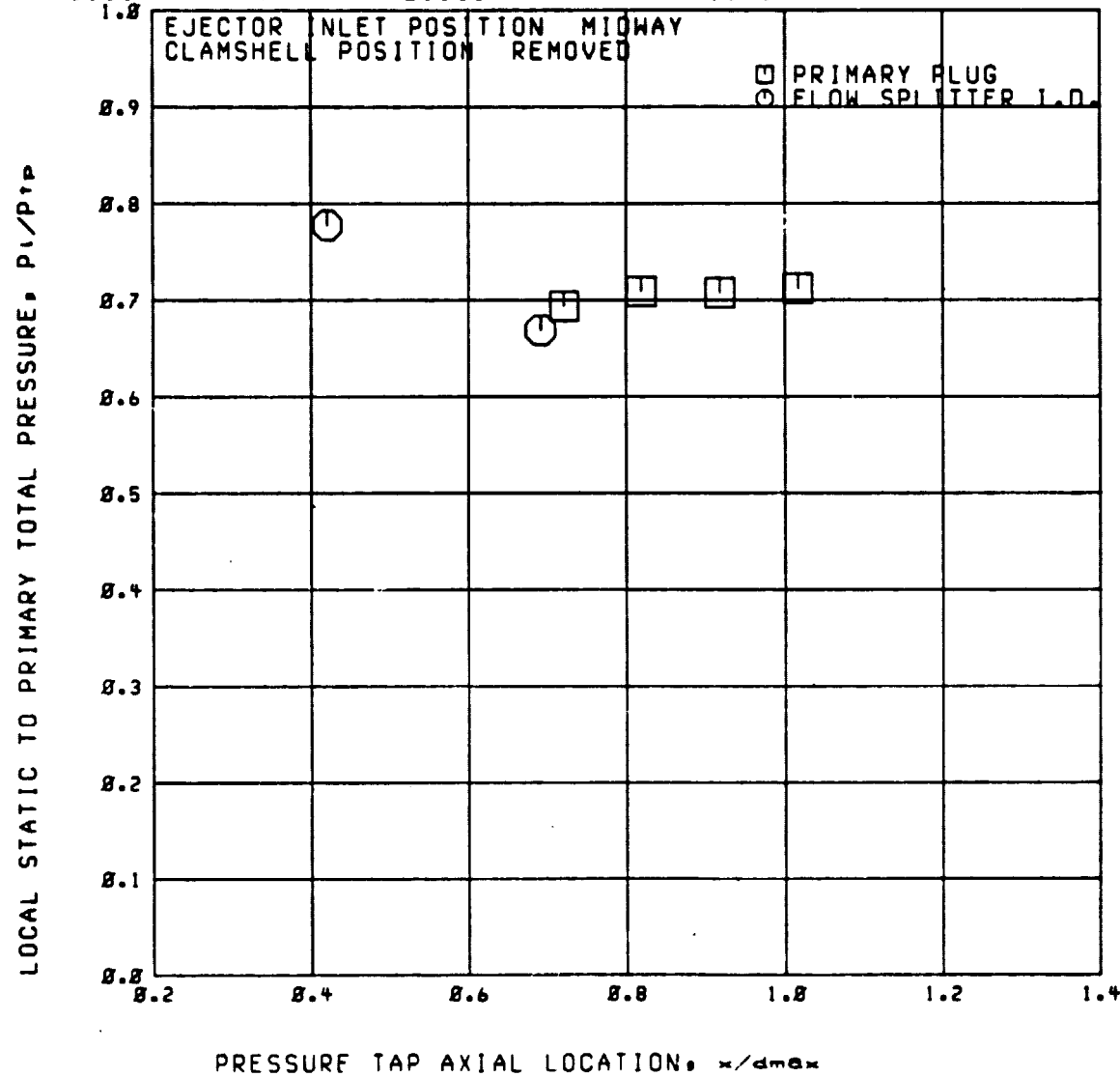
Run 65

RDG=2874

A3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.83$      $P_{tr}/P_0 = 2.153$      $P_{tr}/P_{tp} = 1.46$





RUN 65

RDG=2874

A3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

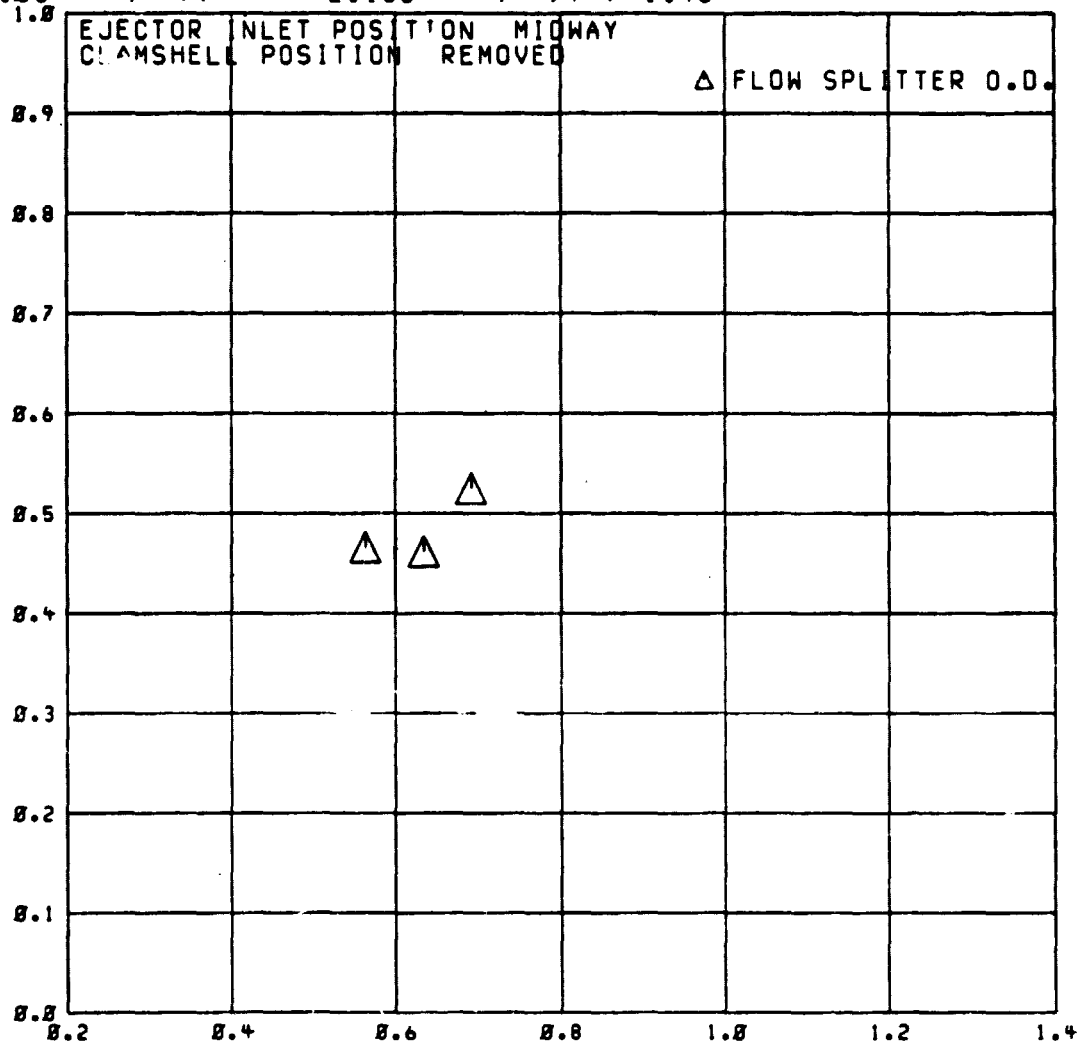
$M_0 = 0.83$

$P_{tr}/P_0 =$

2.153

$P_{tr}/P_{tr0} = 1.46$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_t/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

RUN 65

RDG=2874

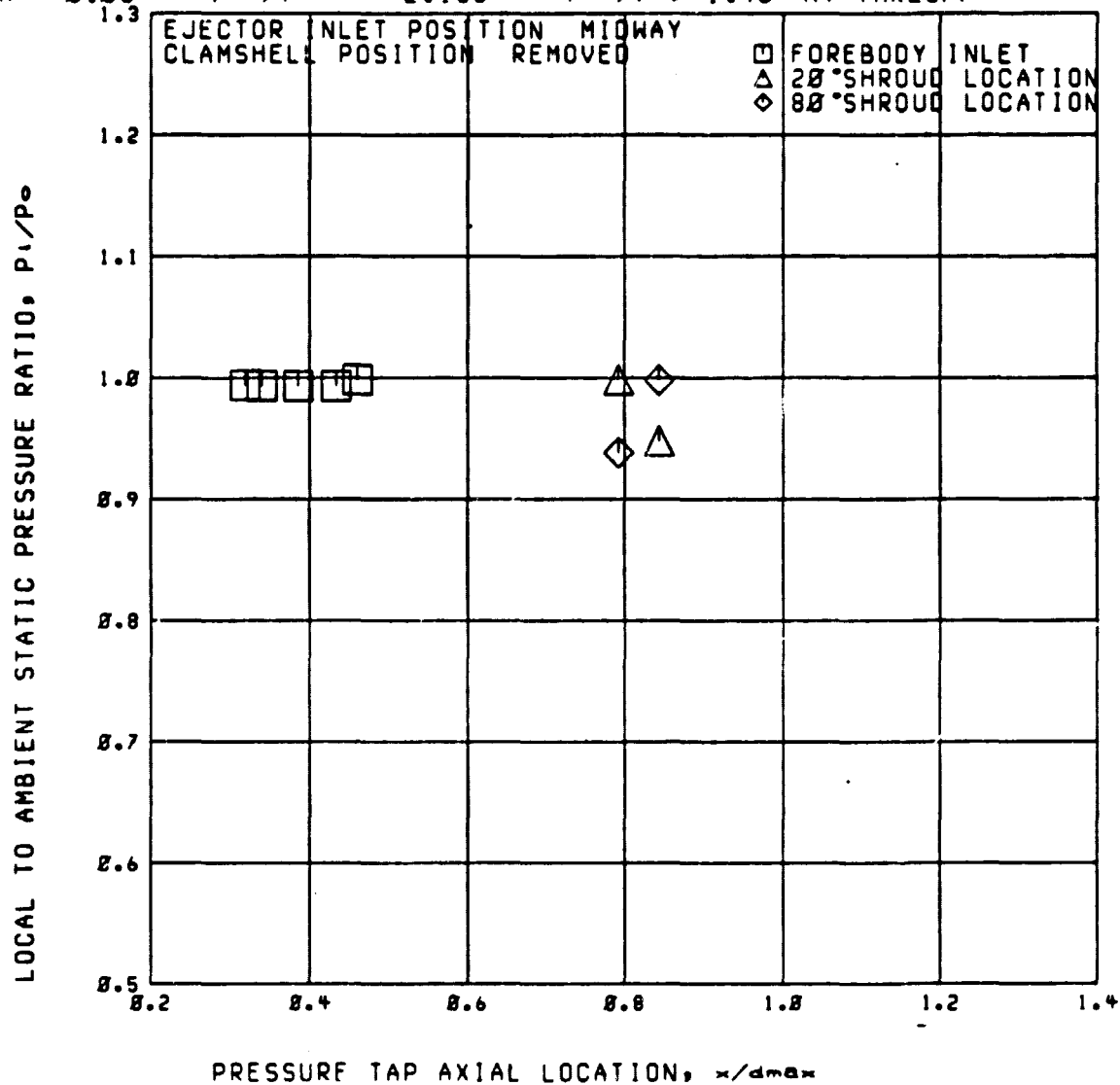
A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M = 0.83$

$P_{tr}/P_o = 2.153$

$P_{tr}/P_{tr} = 1.46$  AT TAKEOFF



RUN 65

RDG=2875

A3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

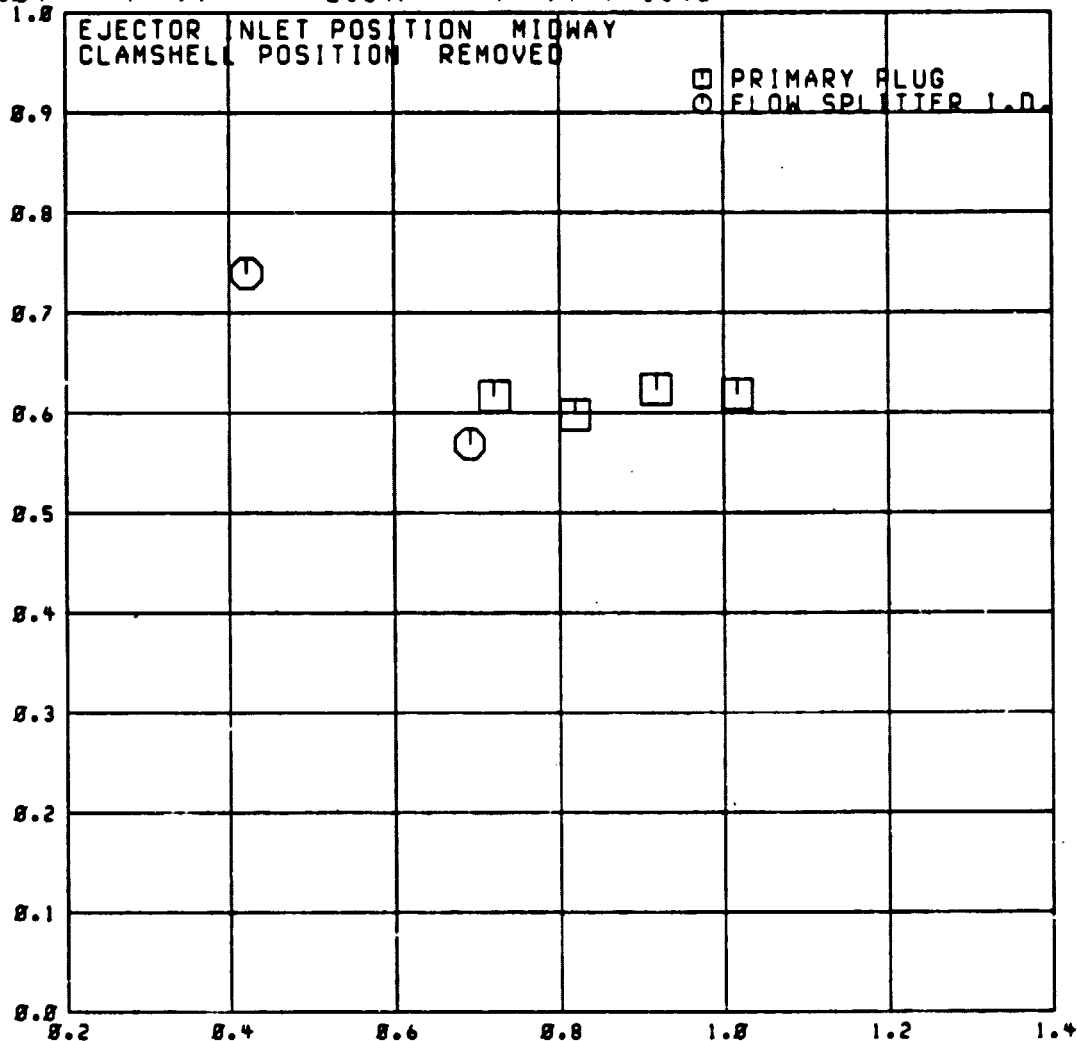
$M_0 = 0.04$

$P_{tr}/P_0 =$

2.547

$P_{tr}/P_{tp} = 1.46$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_t/P_{tp}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

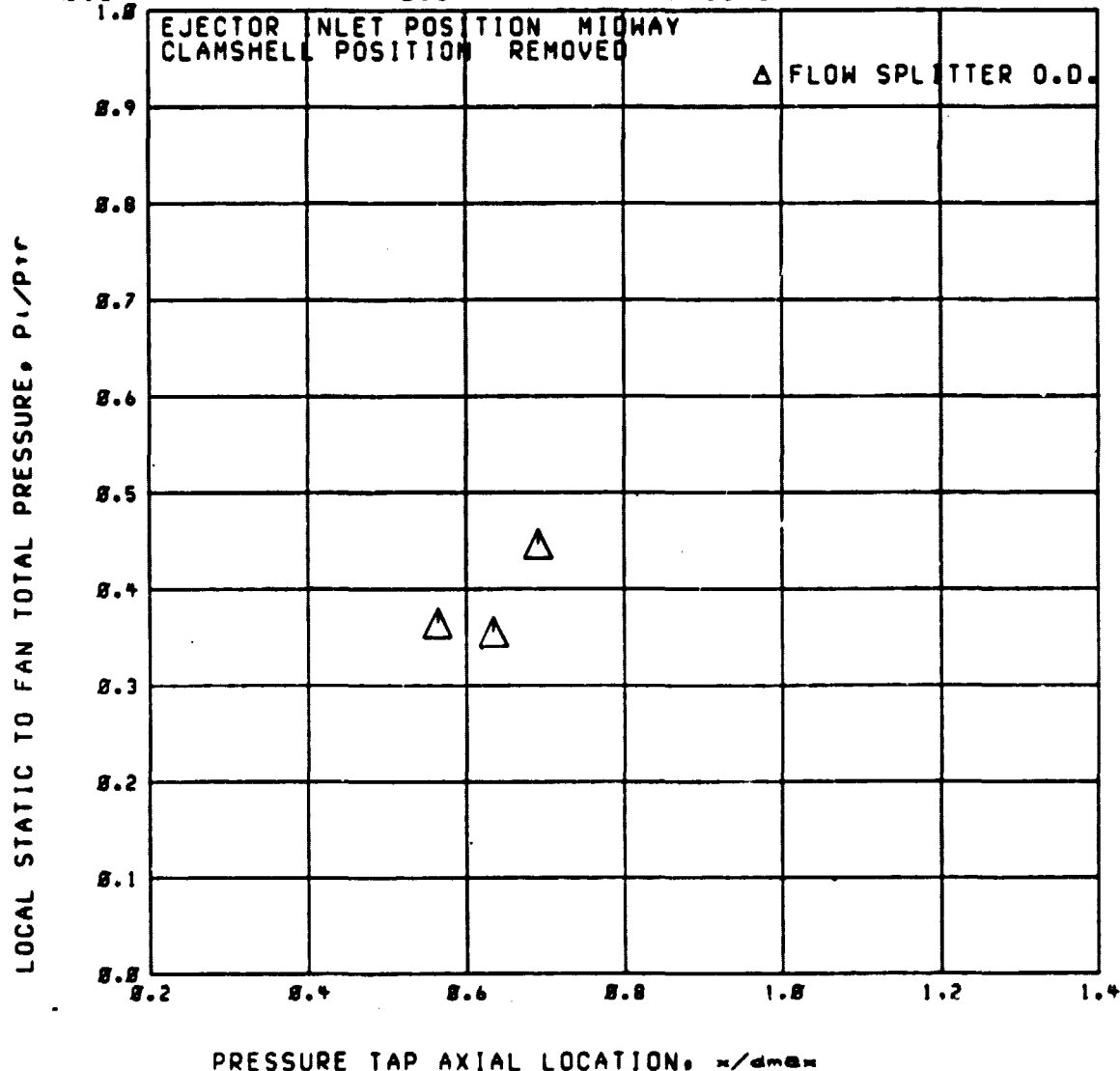
RUN 65

RDG=2875

A3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.84$   $P_{tr}/P_0 = 2.547$   $P_{tr}/P_{tr} = 1.46$



ORIGINAL FILED  
OF PCOR QUALITY

RUN 65

RDG=2875

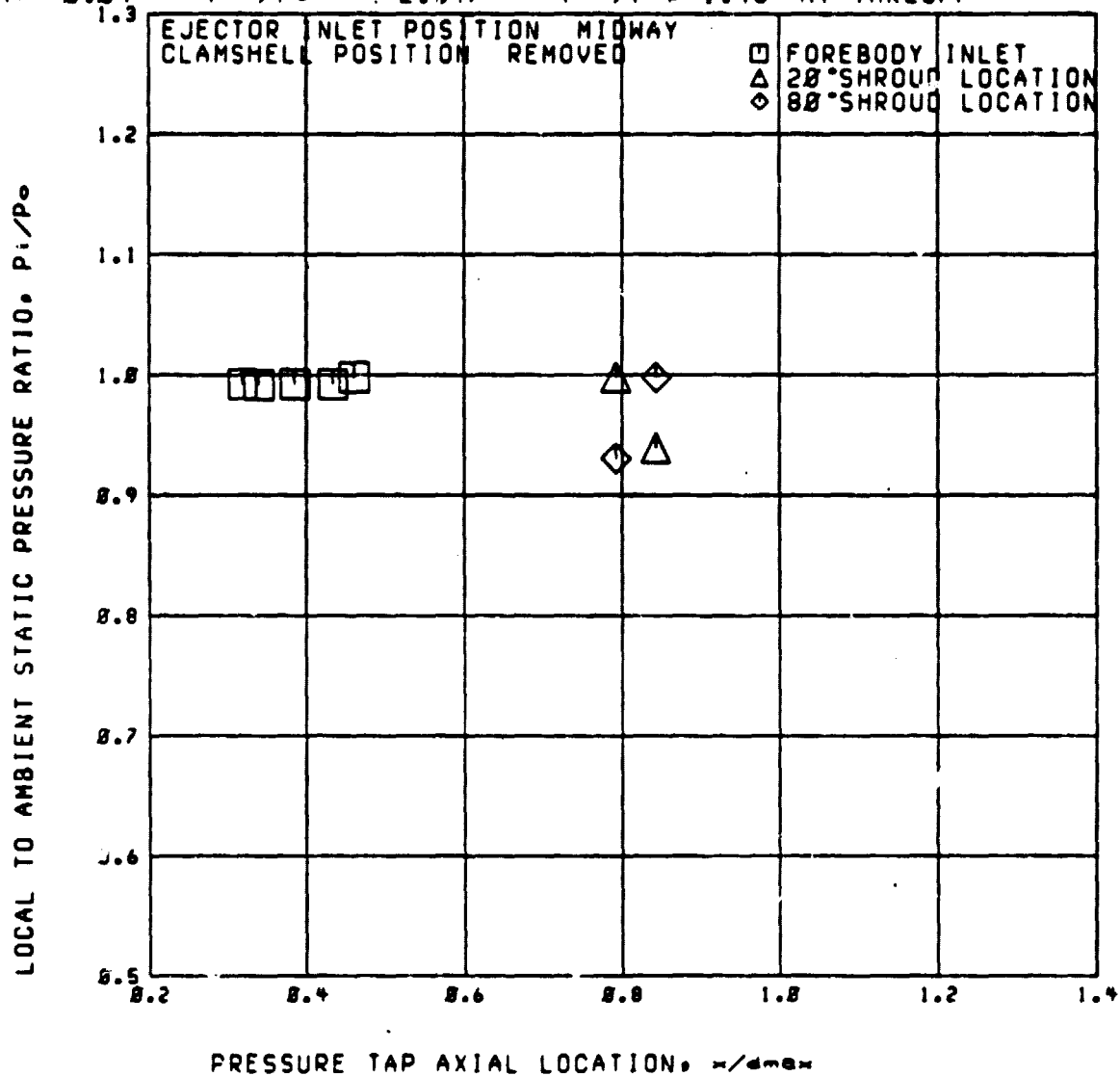
A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M = 0.84$

$P_{tr}/P_o = 2.547$

$P_{tr}/P_{tr} = 1.46$  AT TAKEOFF



RUN 65

RDG=2876

A3

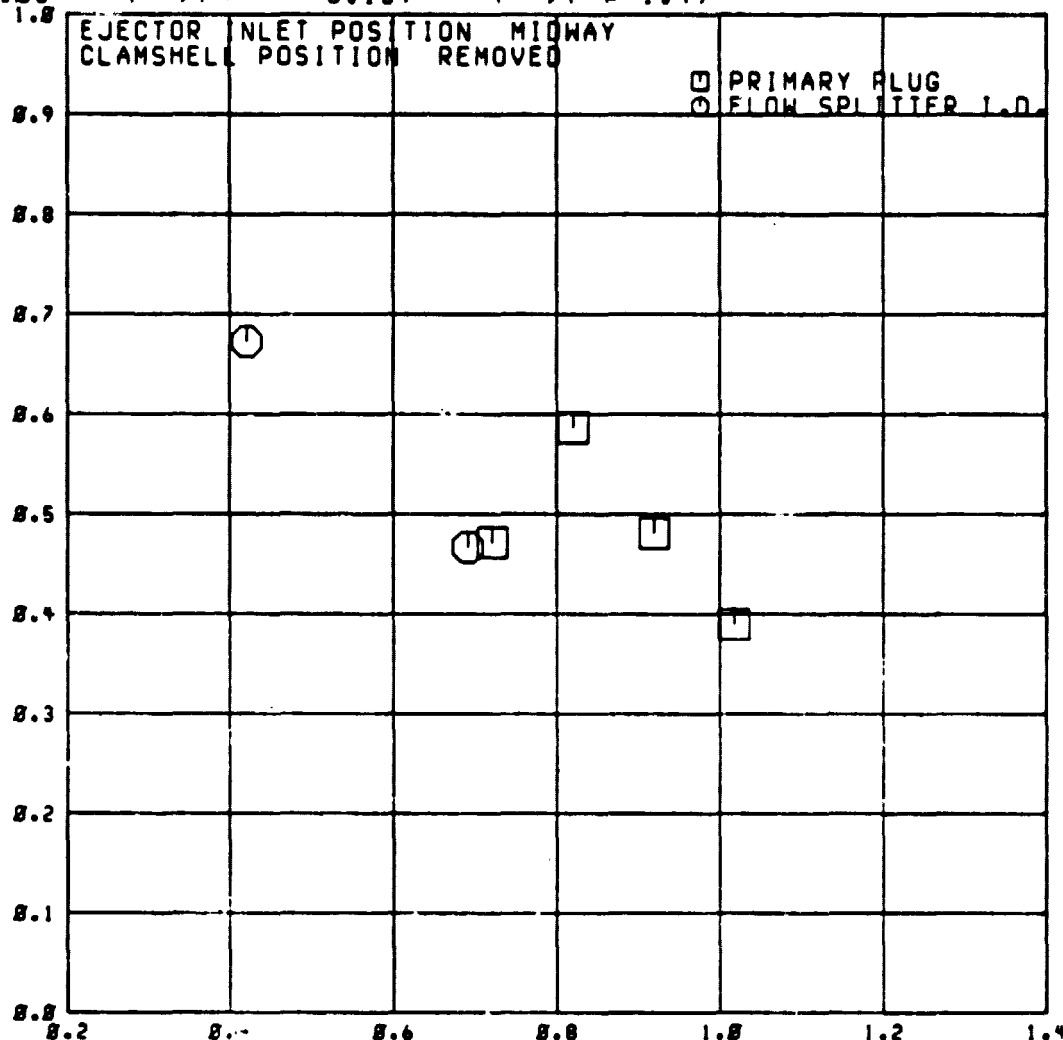
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.85$

$P_{10}/P_{00} = 3.159$

$P_{10}/P_{100} = 1.49$

LOCAL STATIC TO PRIMARY TOTAL PRESSURE,  $P_1/P_{10}$



PRESSURE TAP AXIAL LOCATION, in/dmax

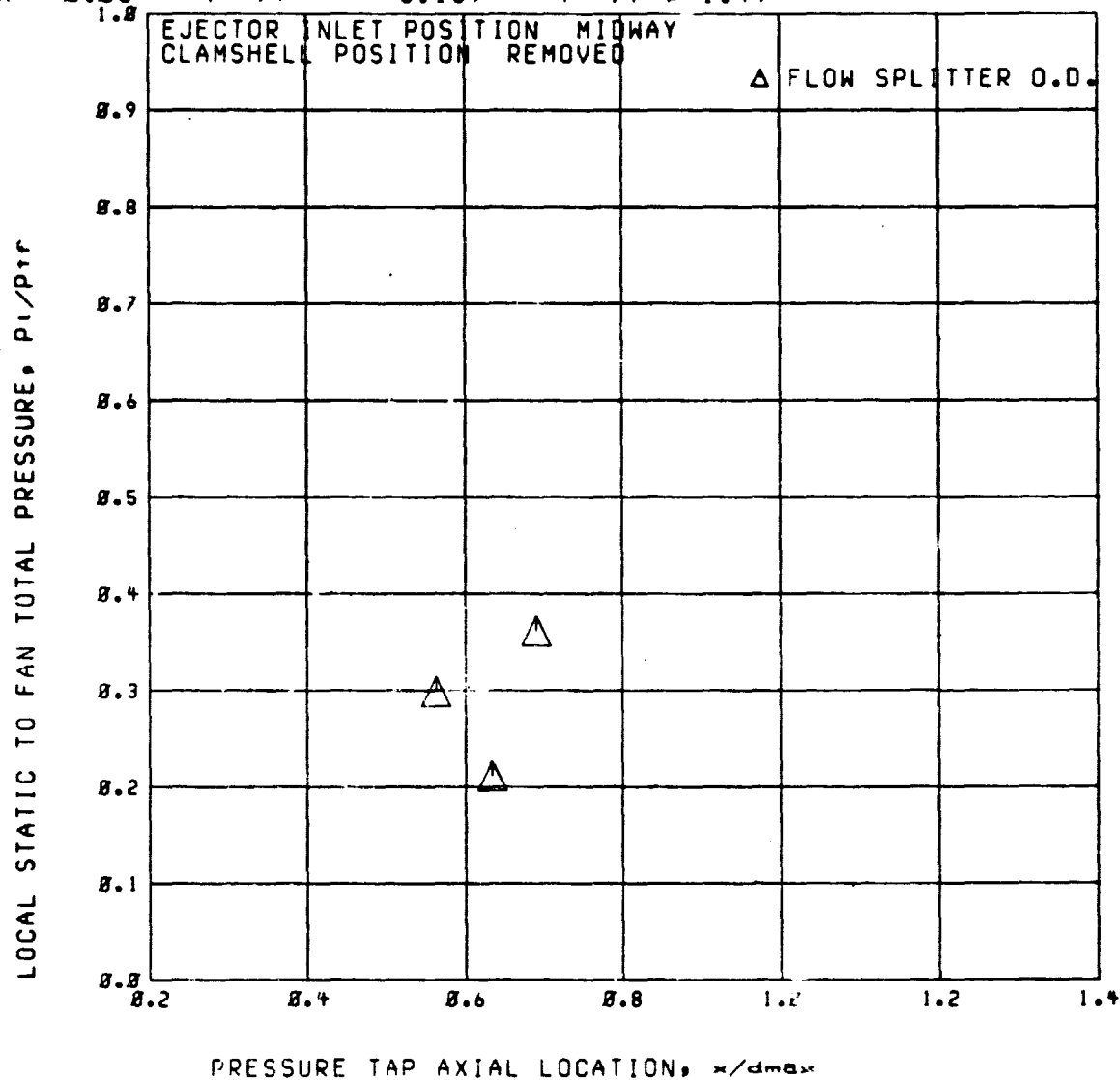
RUN 65

RDG=2876

A3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.05$      $P_{tr}/P_0 = 3.159$      $P_{tr}/P_{tr} = 1.49$



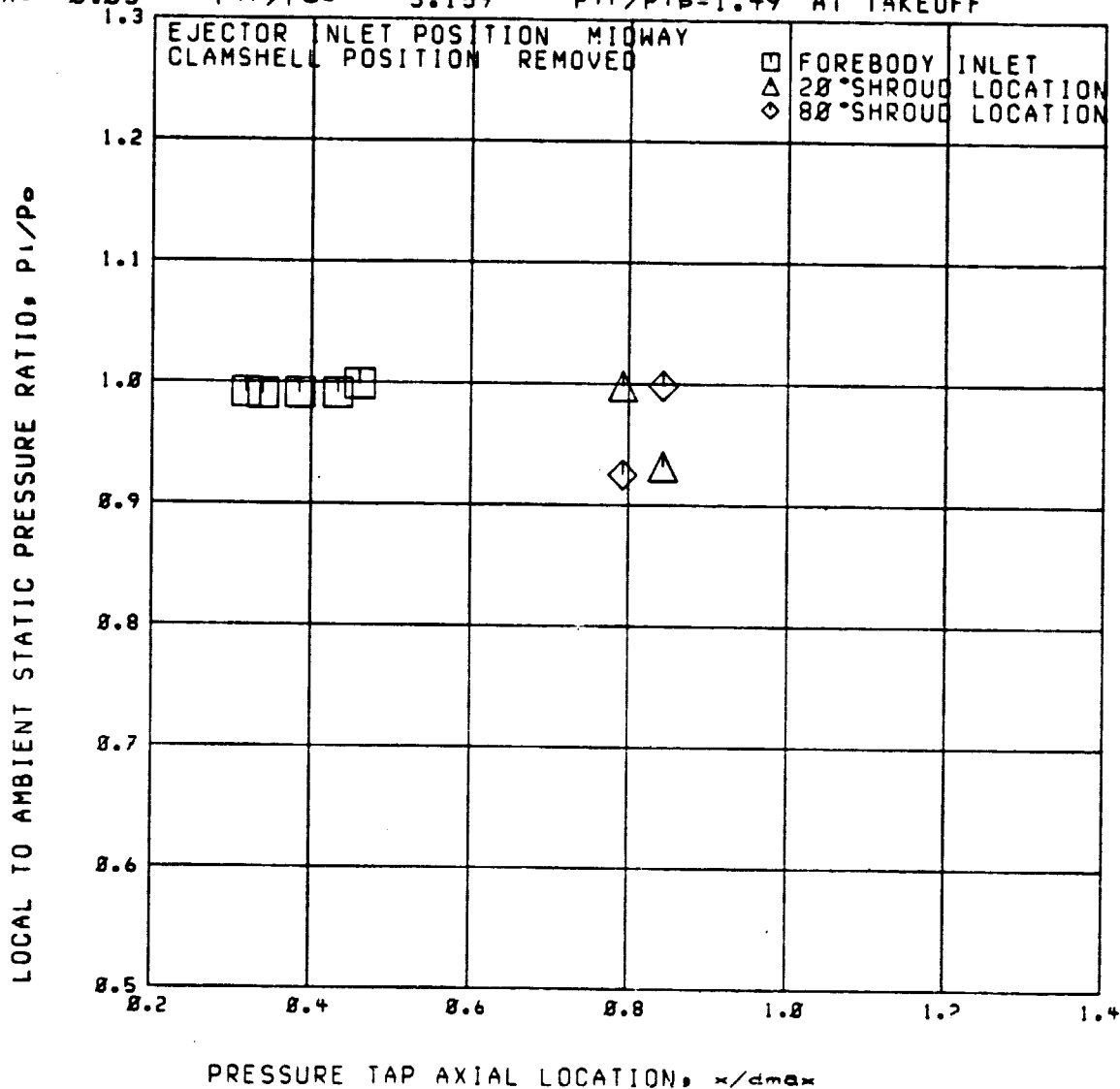
RUN 65

RDG=2876

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.05$   $P_{ir}/P_{0e} = 3.159$   $P_{ir}/P_{ip} = 1.49$  AT TAKEOFF





RUN 65

A3

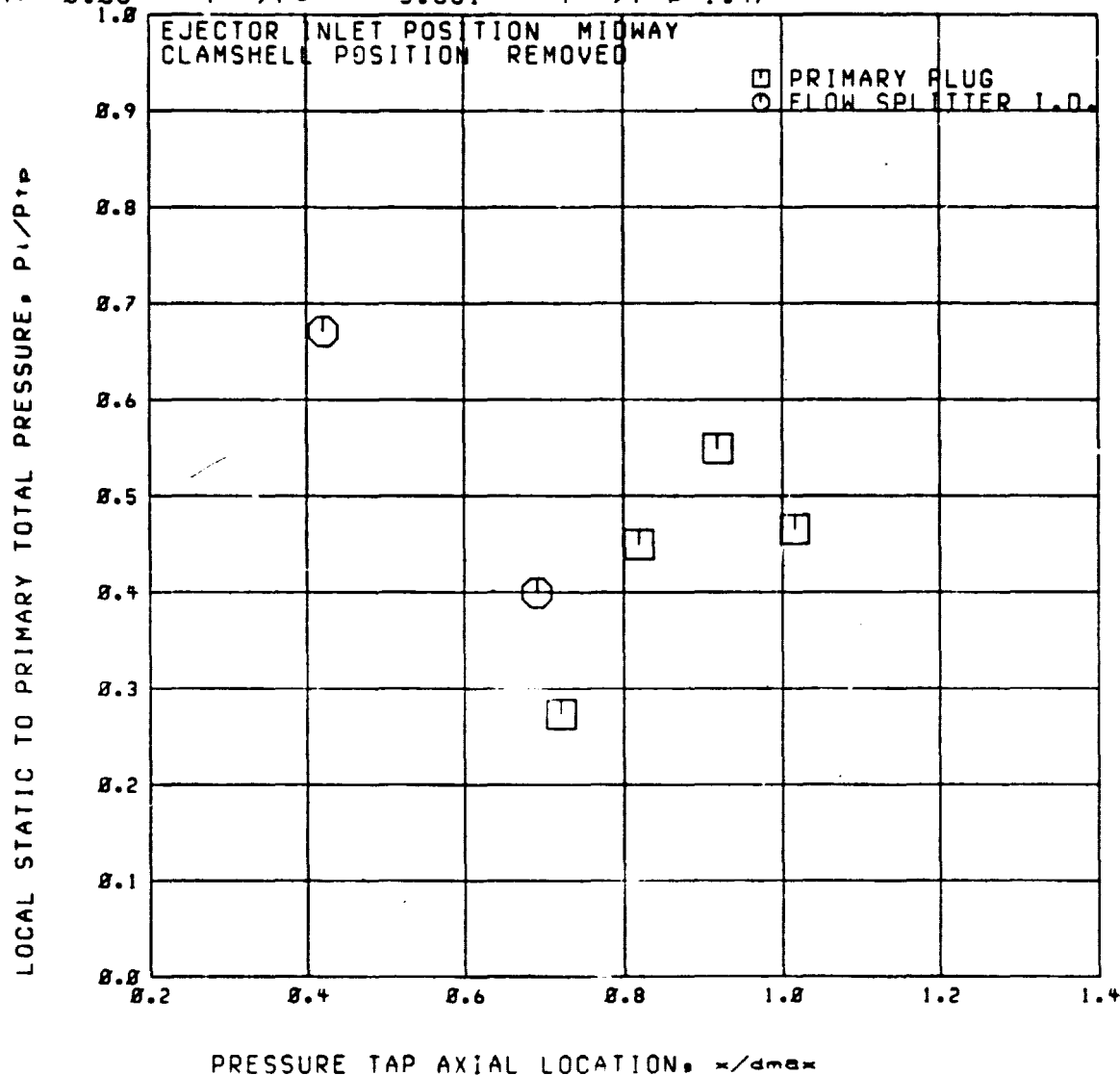
RDG=2877

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.86$

$P_{tr}/P_0 = 3.661$

$P_{tr}/P_{tr} = 1.47$



RUN 65

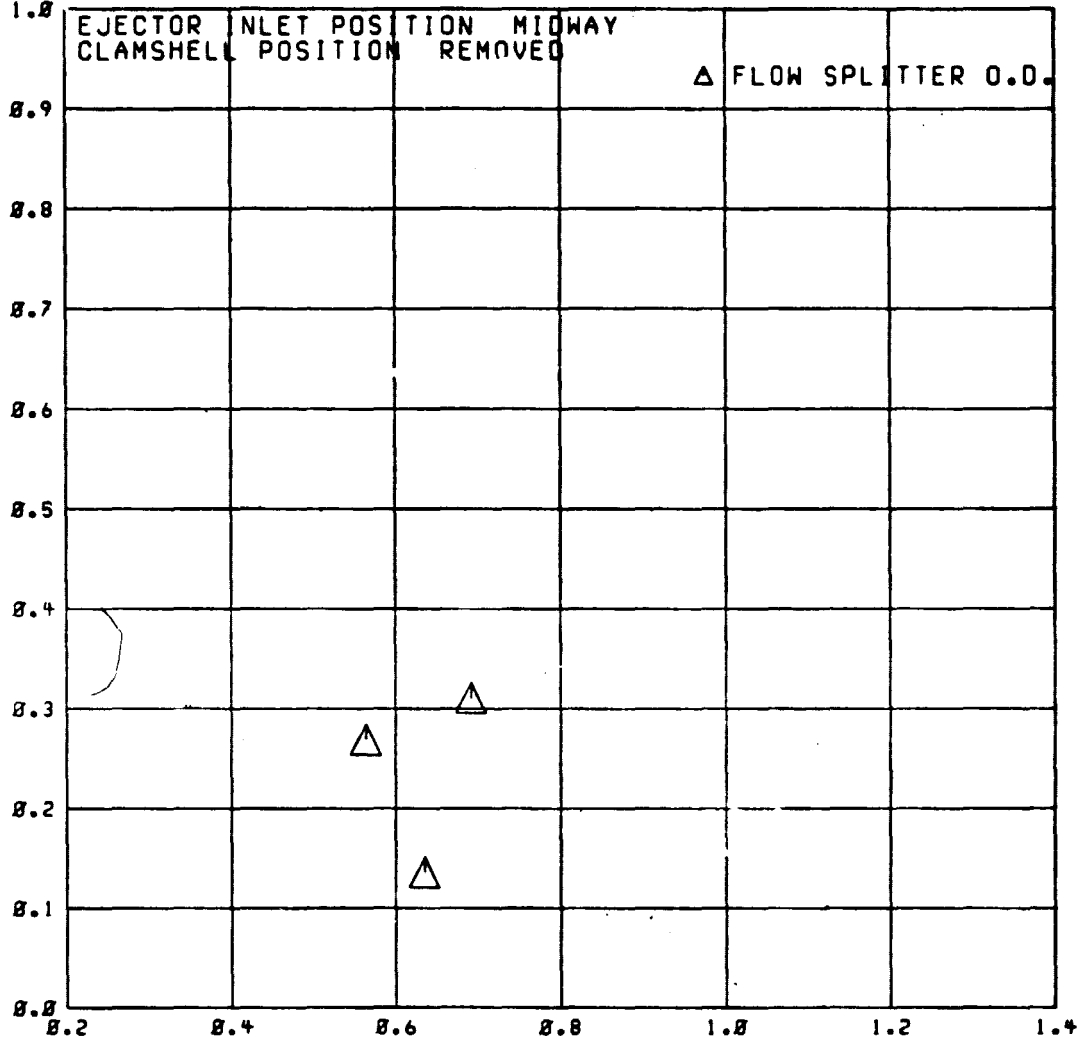
A3

RDG=2877

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.86$   $P_{tr}/P_0 = 3.661$   $P_{tr}/P_{trp} = 1.47$

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_i/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

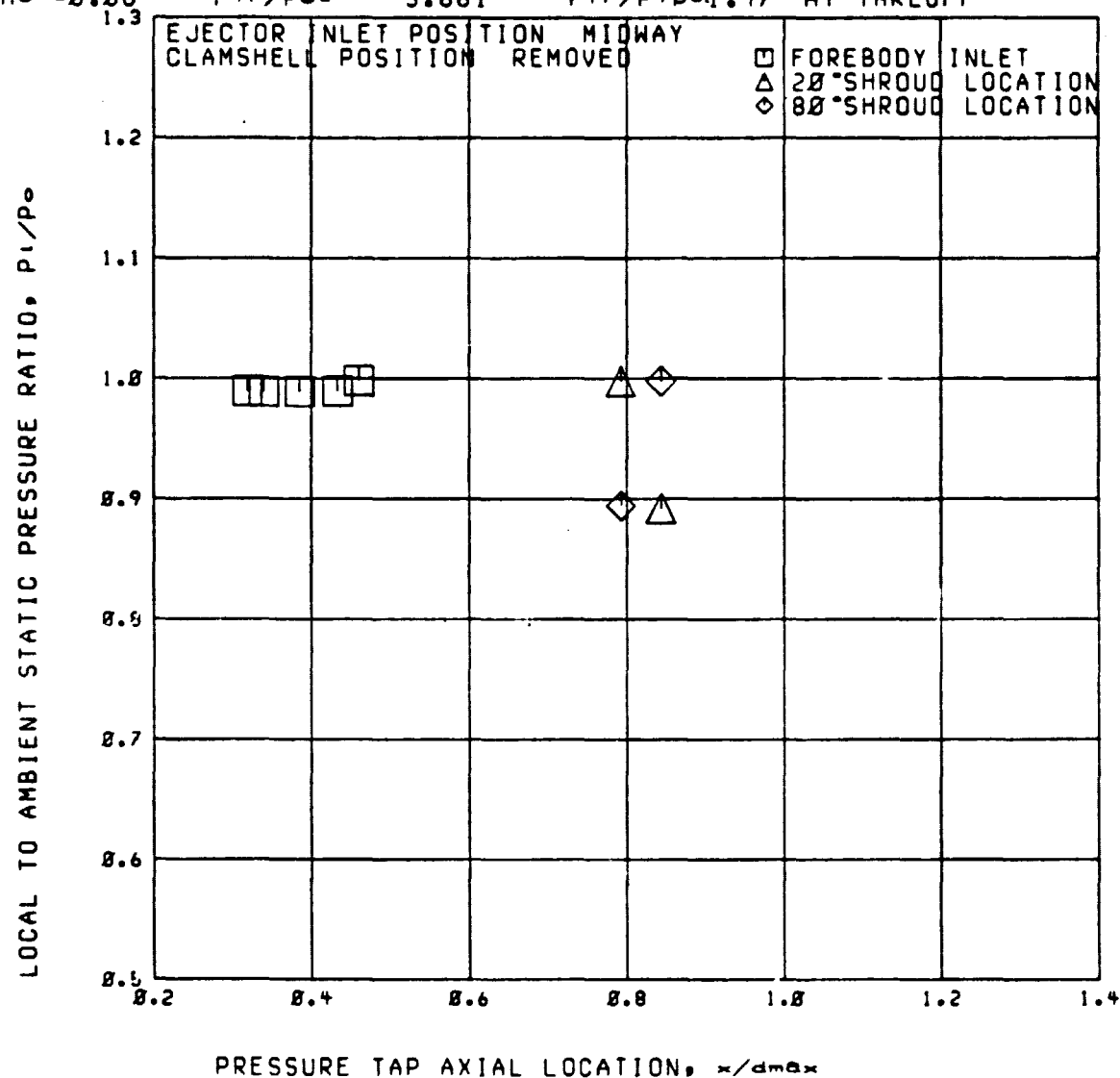
RUN 65

RDG=2877

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.06$   $P_{tr}/P_o = 3.661$   $P_{tr}/P_{tp} = 1.47$  AT TAKEOFF



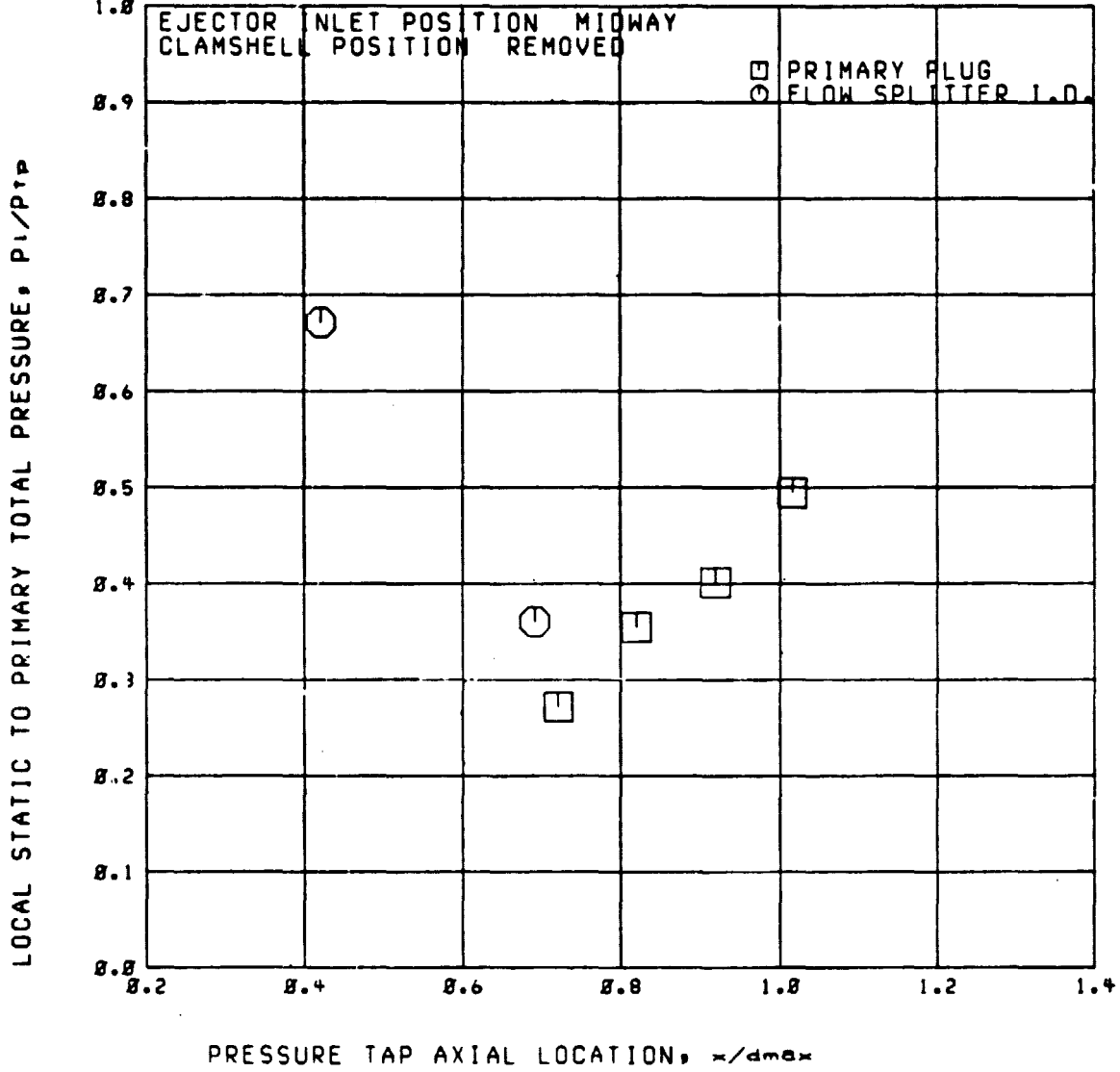
RUN 65

A3

RDG=2878

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.06$      $P_{tr}/P_0 = 4.092$      $P_{tr}/P_{tp} = 1.47$



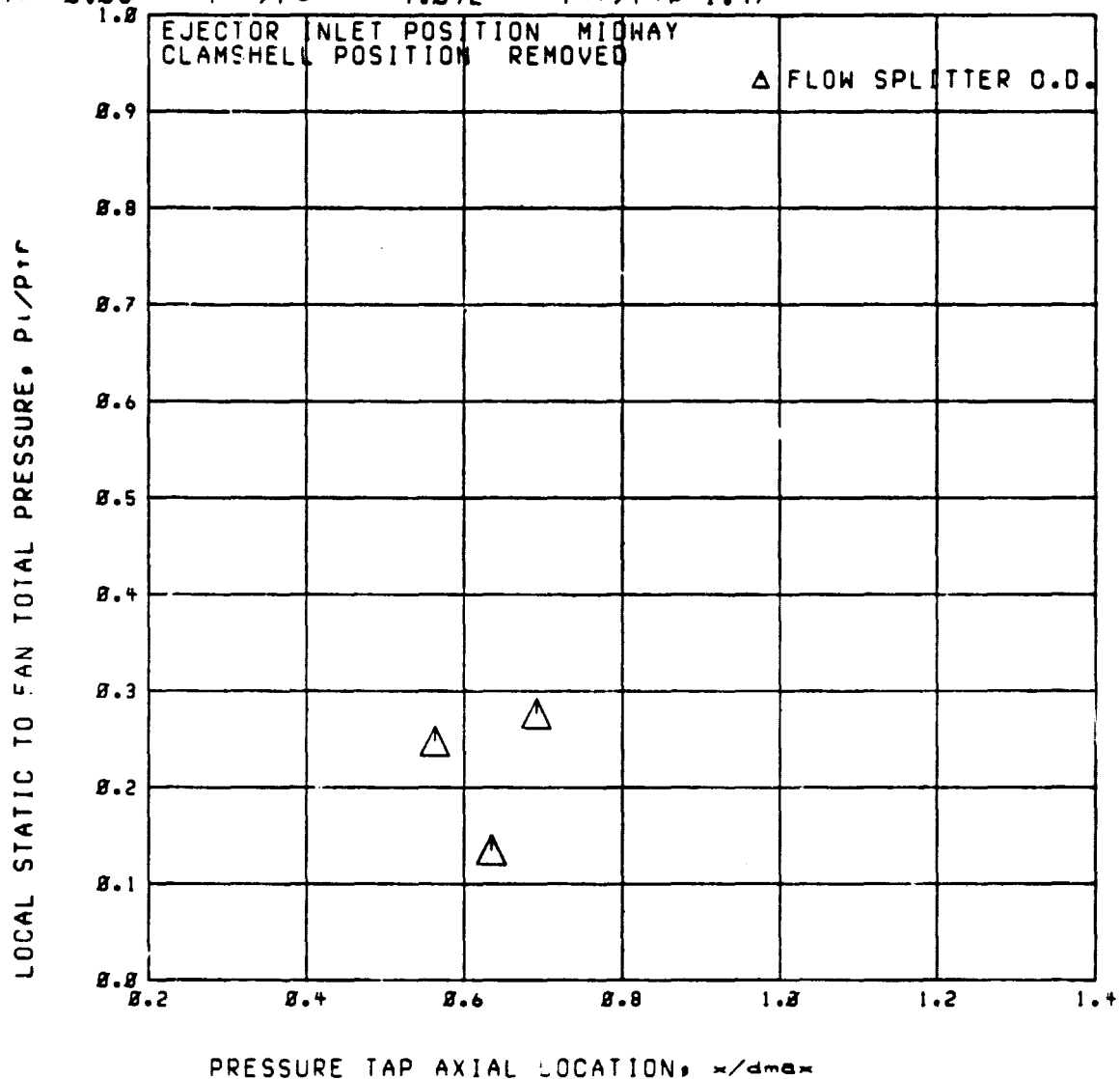
Run 65

A3

RDG=2878

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.86$      $P_{tr}/P_0 = 4.892$      $P_{tr}/P_{tr0} = 1.47$



Run 65

RDG=2878

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.86$

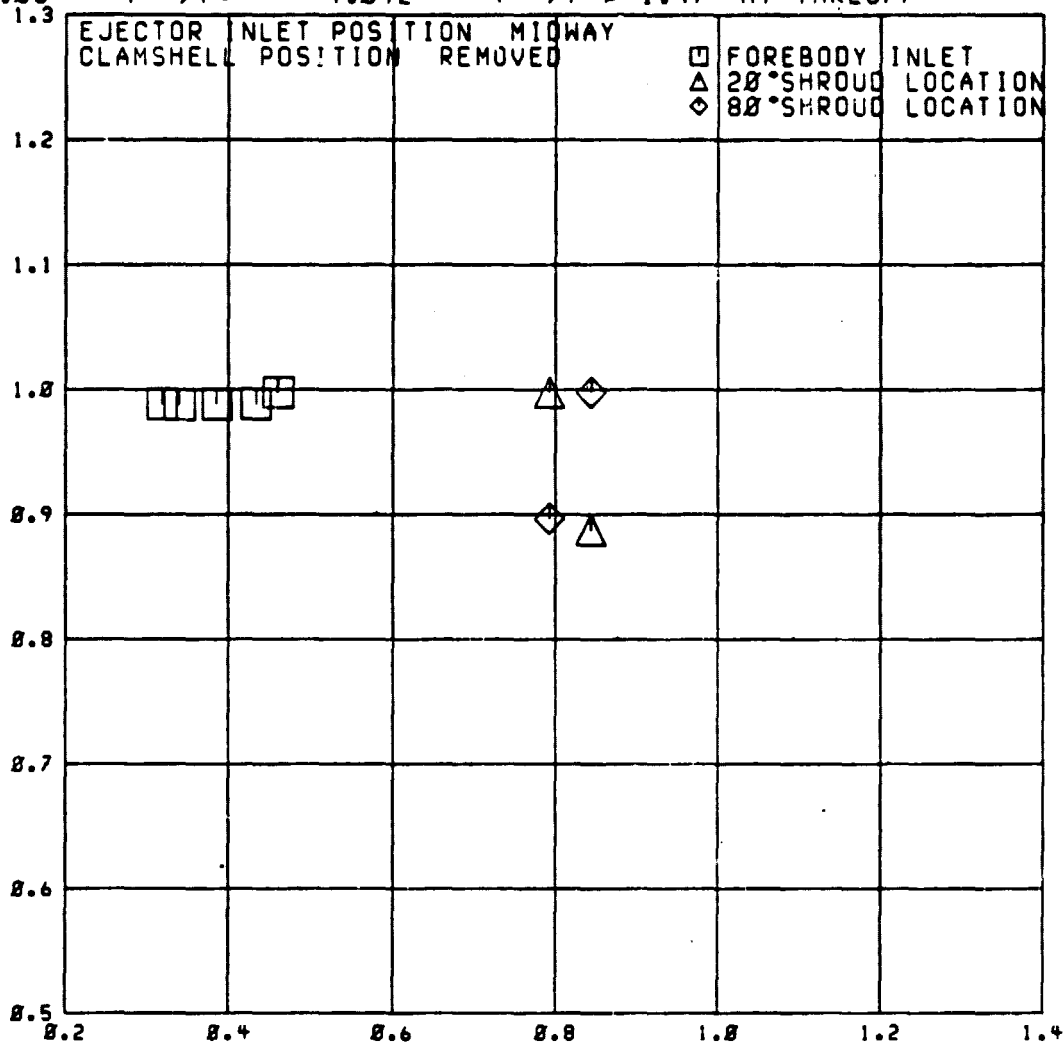
$P_{ir}/P_o =$

4.892

$P_{ir}/P_{tp} =$

1.47 AT TAKEOFF

LOCAL TO AMBIENT STATIC PRESSURE RATIO,  $P_i/P_o$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$

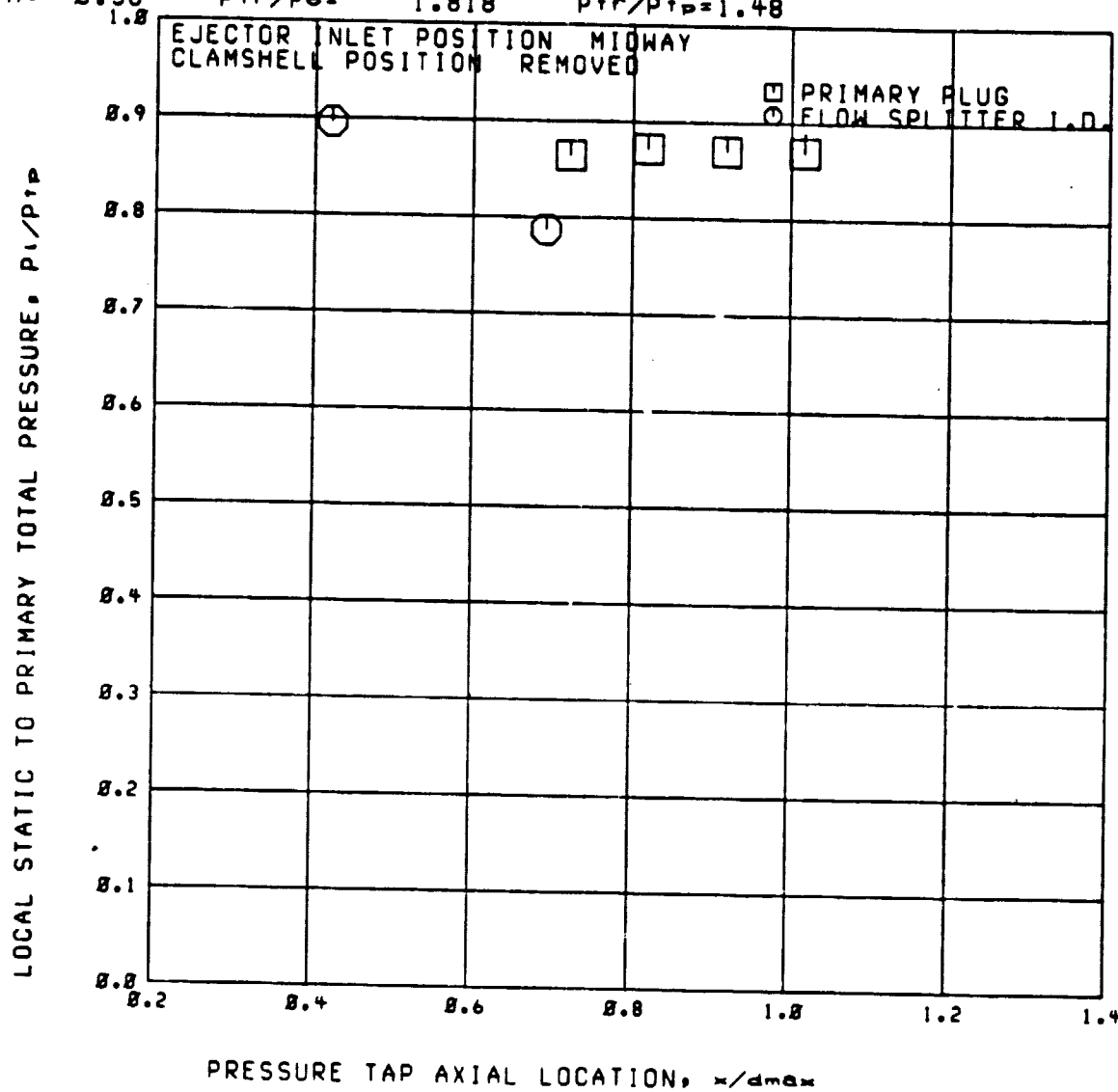
Run 65

A3

RDG=2887

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 1.818$   $P_{tr}/P_{tr} = 1.48$



RUN 65

A3

RDG=2887

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

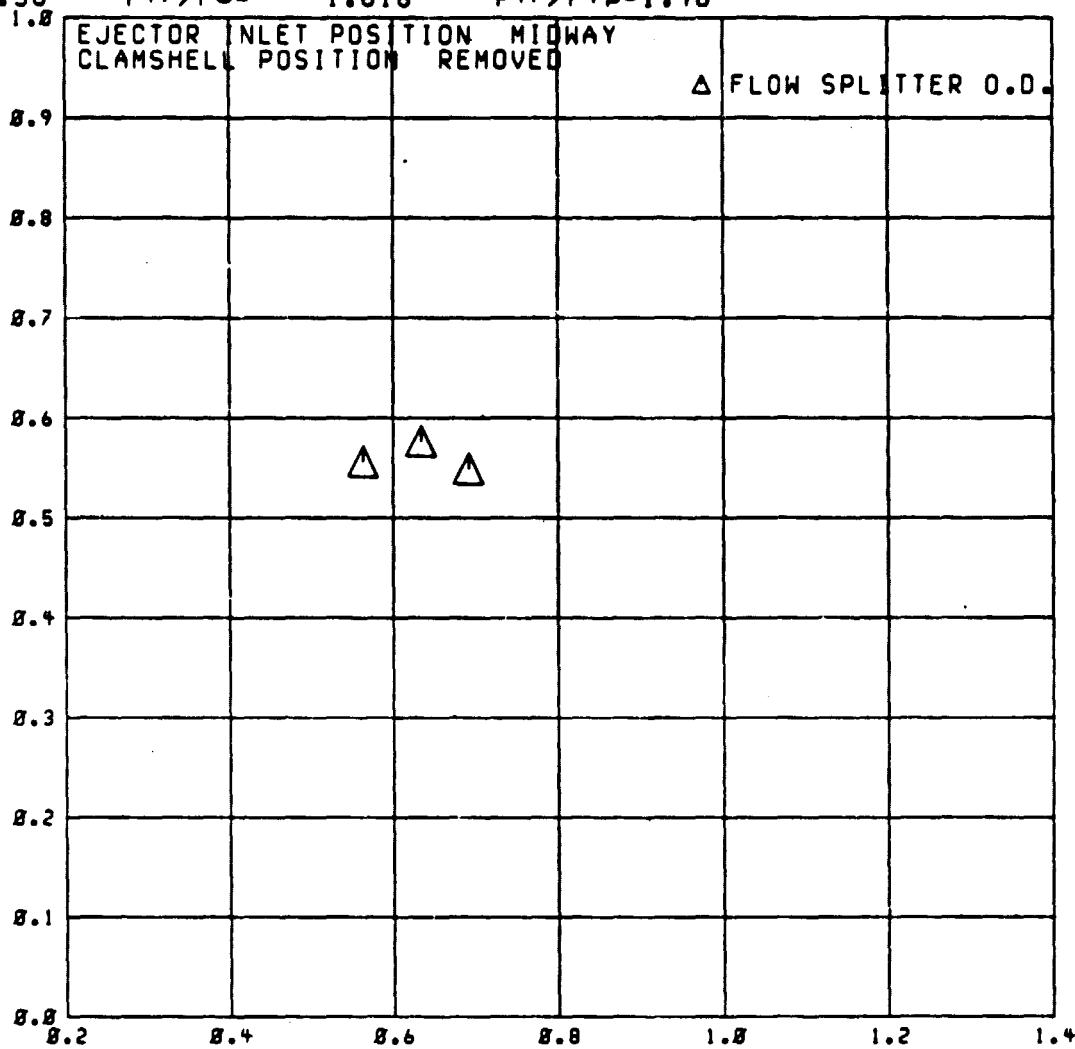
$P_{tr}/P_0 =$

1.818

$P_{tr}/P_{tr} =$

1.48

LOCAL STATIC TO FAN TOTAL PRESSURE,  $P_t/P_{tr}$



PRESSURE TAP AXIAL LOCATION,  $x/d_{max}$



RUN 65

RDG=2887

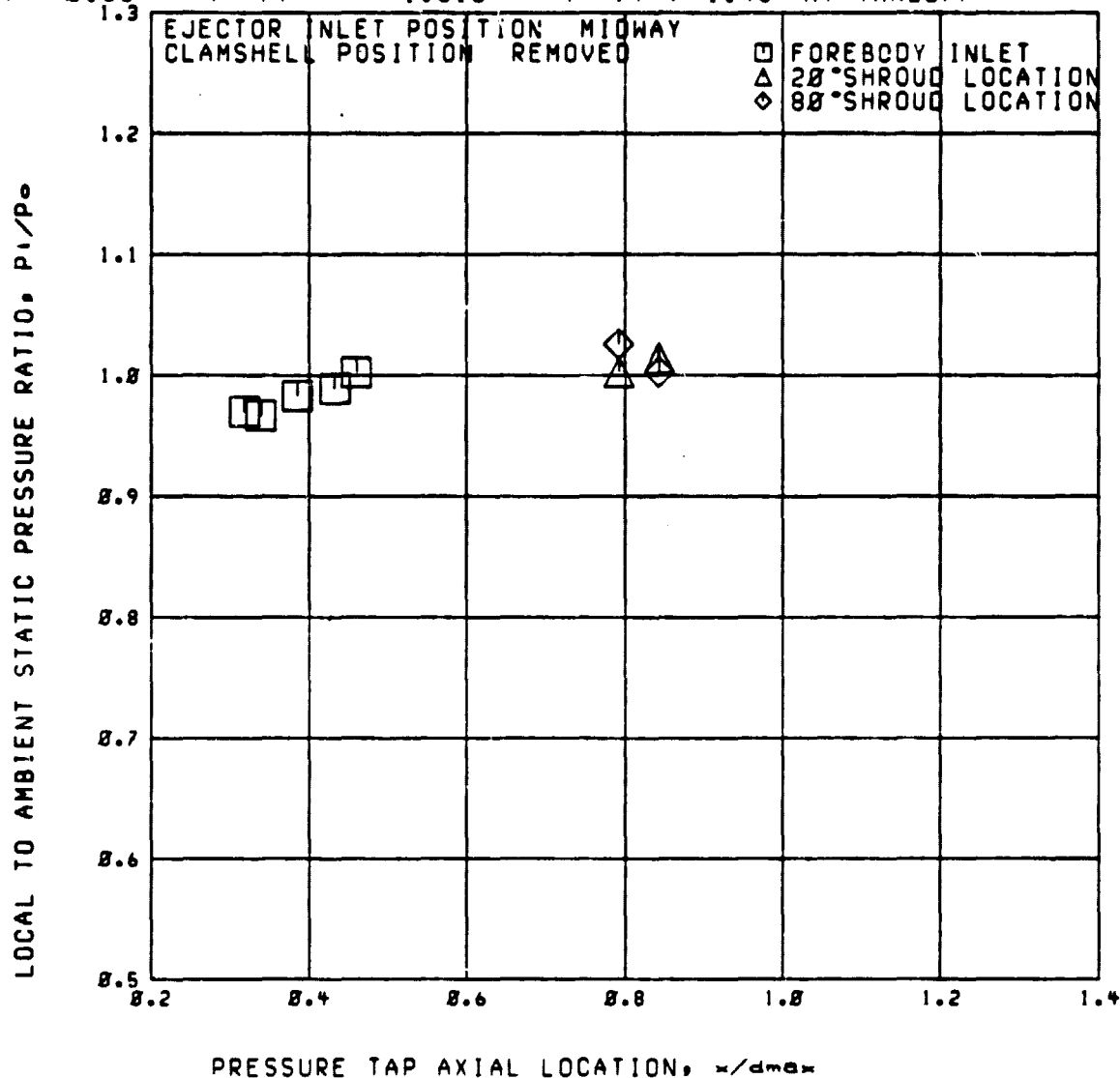
A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$

$P_{1c}/P_0 = 1.818$

$P_{1c}/P_{1p} = 1.48$  AT TAKEOFF



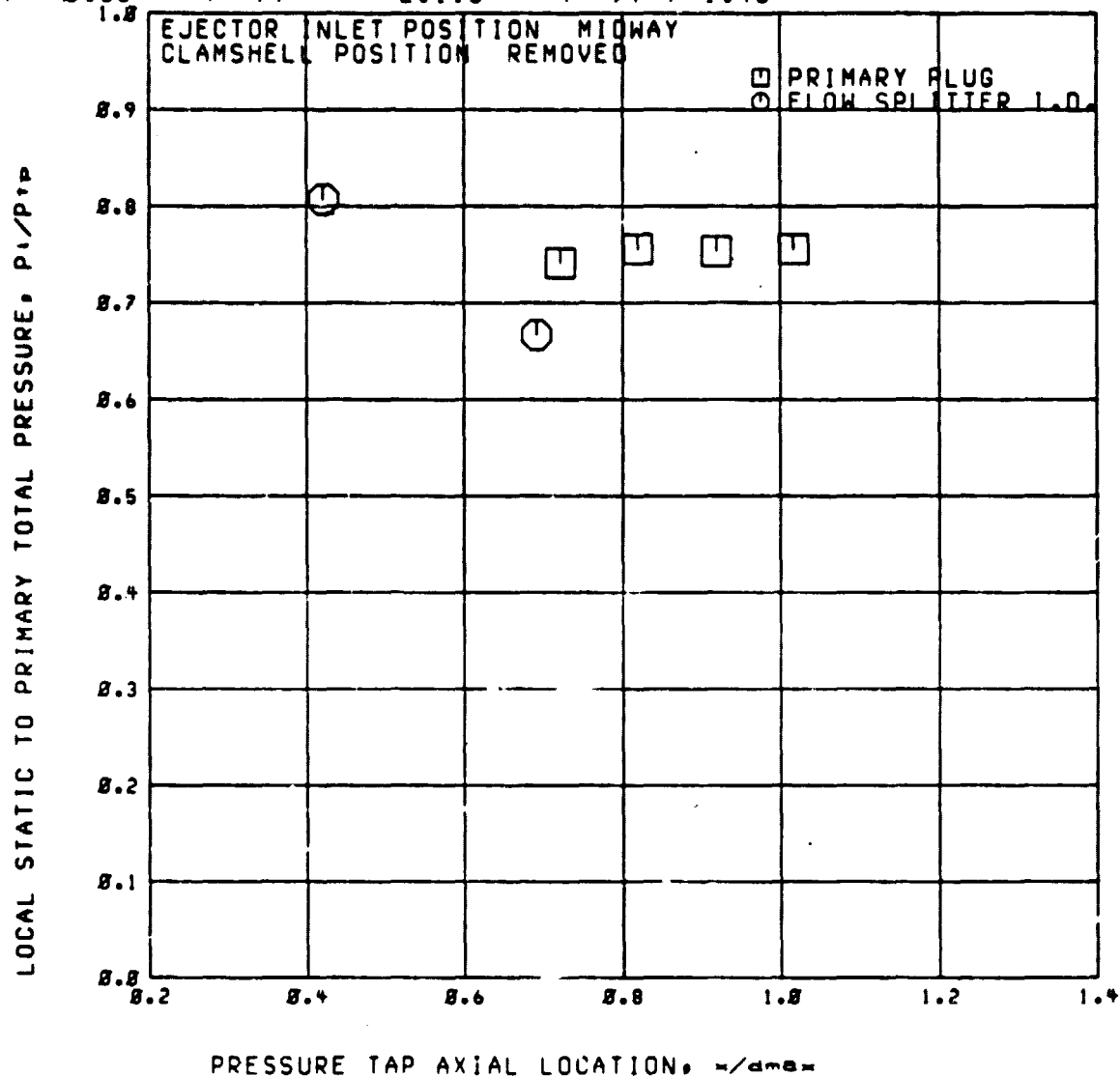
RUN 65

A3

RDG=2888

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M = 0.36$   $P_{tr}/P_{os} = 2.113$   $P_{tr}/P_{tp} = 1.45$



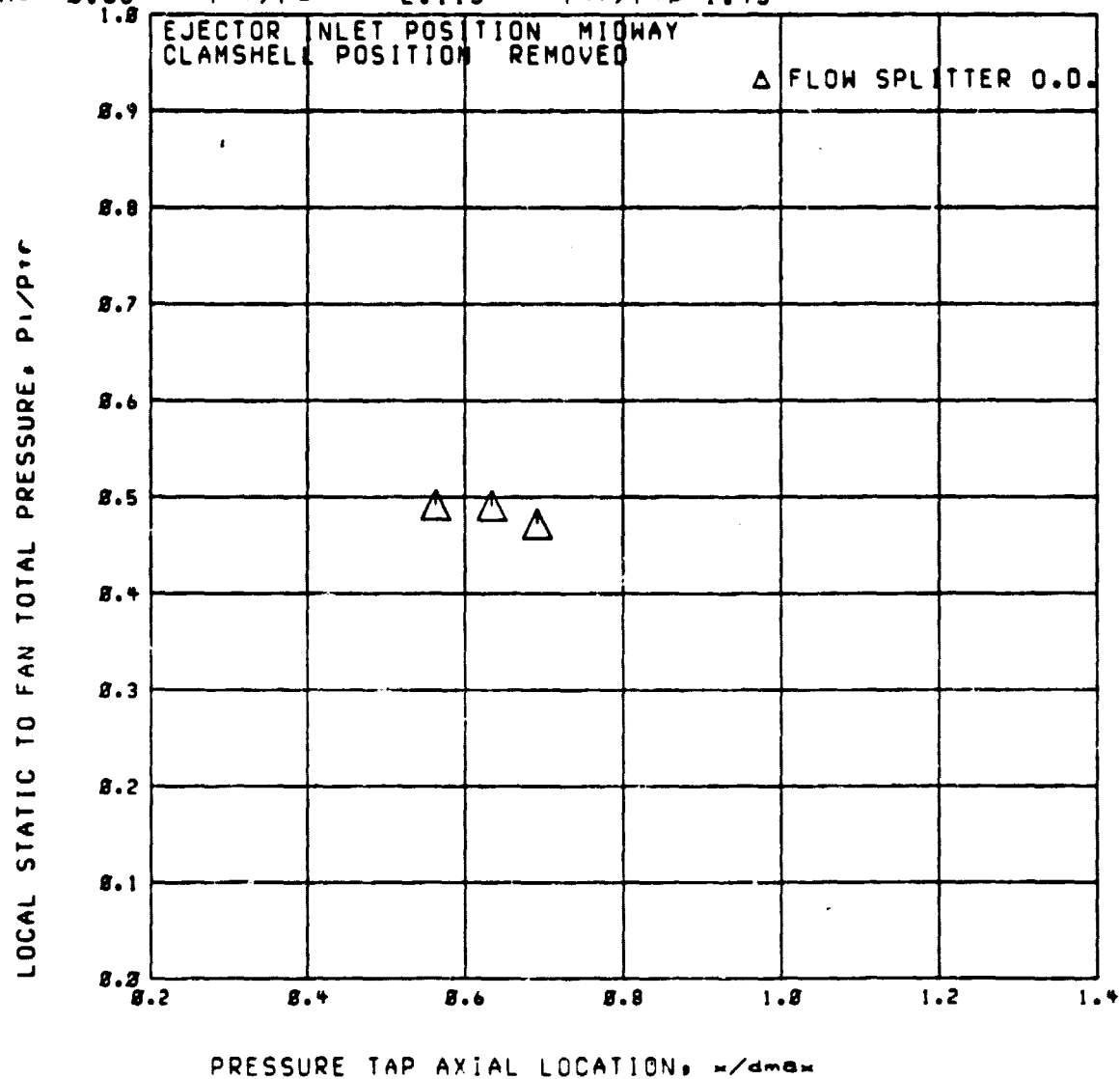
Run 65

A3

RDG=2888

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$   $P_{tr}/P_o = 2.113$   $P_{tr}/P_{tr} = 1.45$



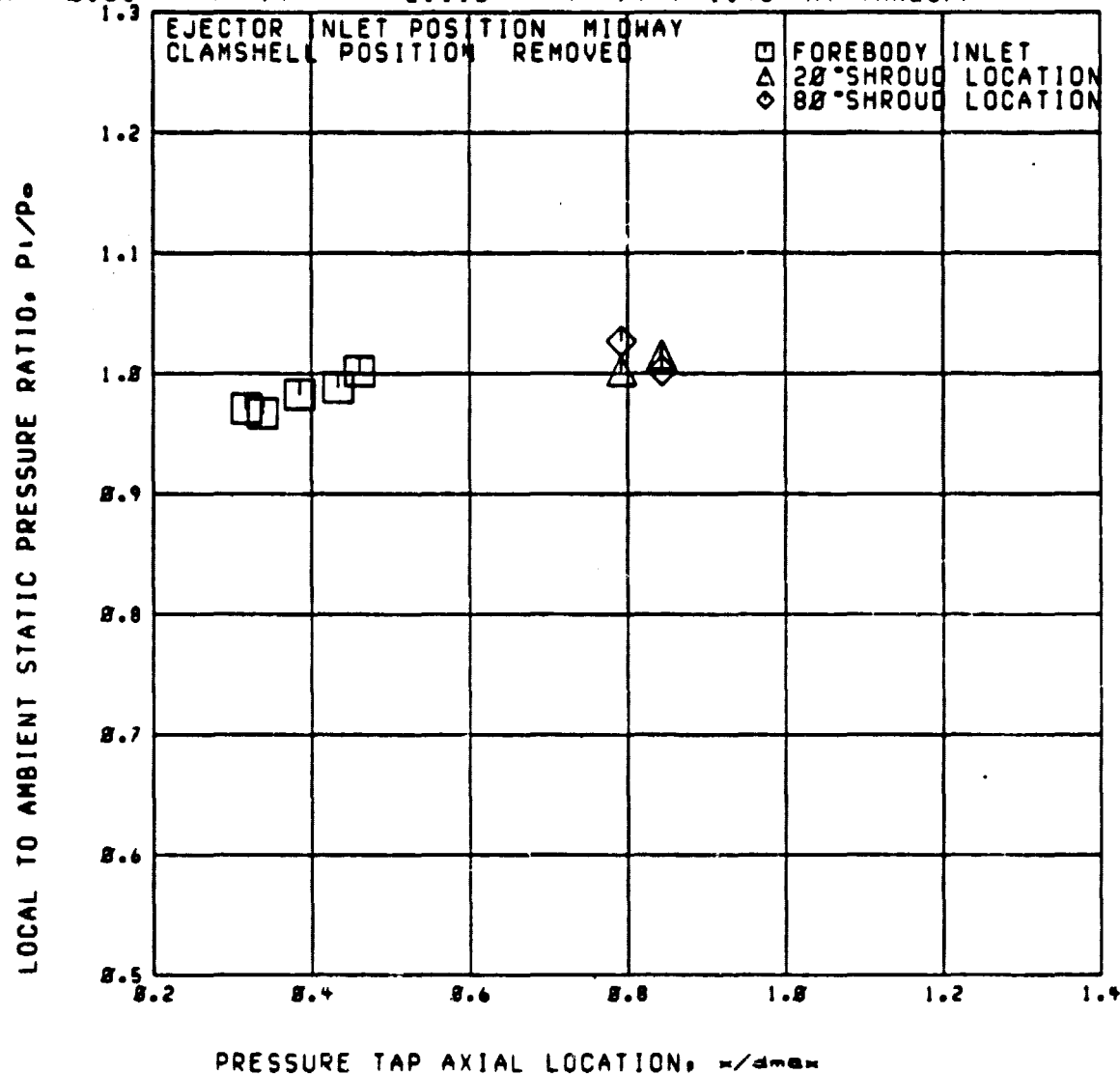
RUN 65

RDG=2888

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 8.36$   $P_{tr}/P_0 = 2.113$   $P_{tr}/P_0 = 1.45$  AT TAKEOFF



ORIGINAL PAGE 11  
7-1-60

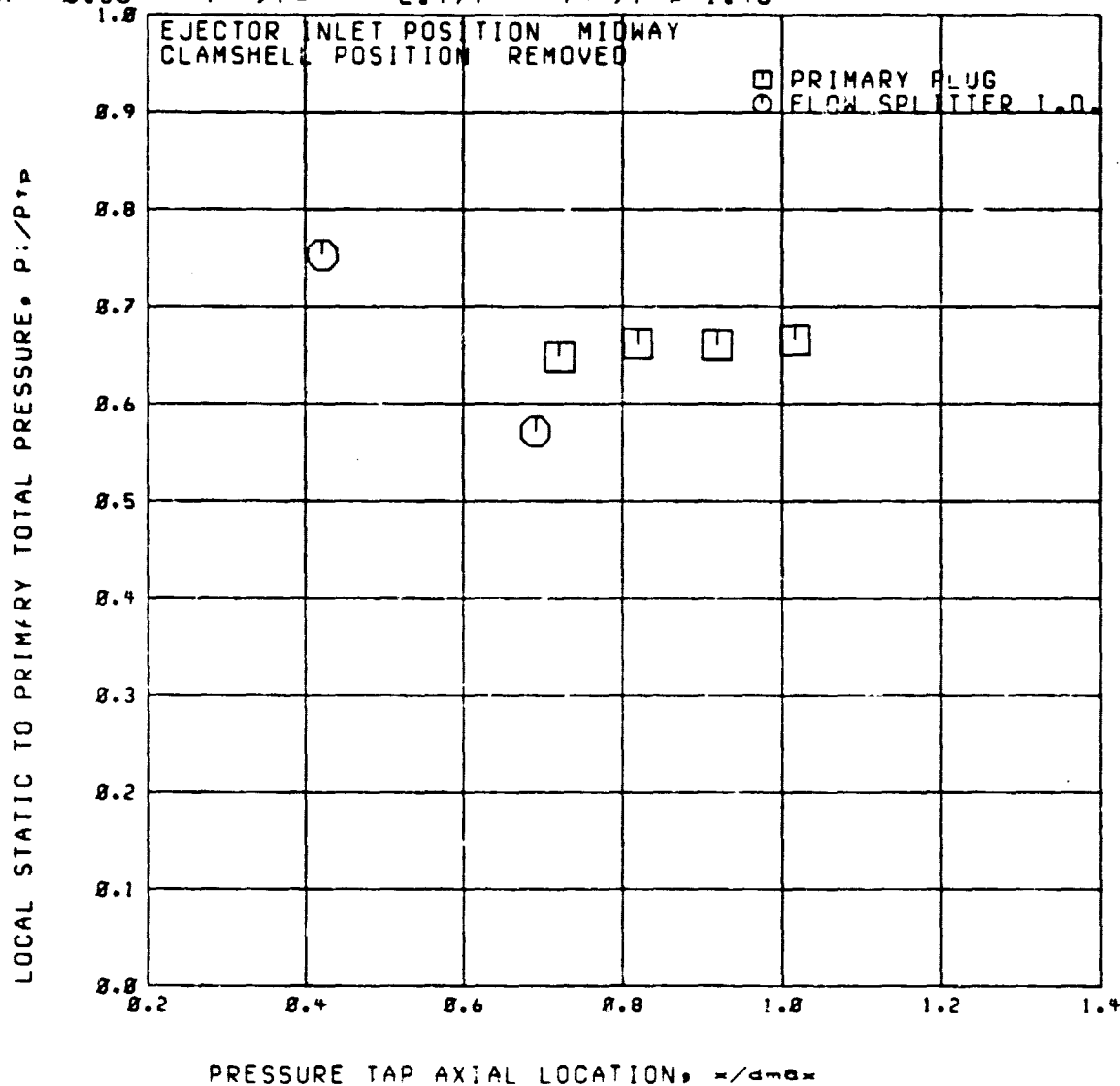
RUN 65

A3

RDG=2889

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_{02} = 2.494$   $P_{tr}/P_{tr} = 1.46$



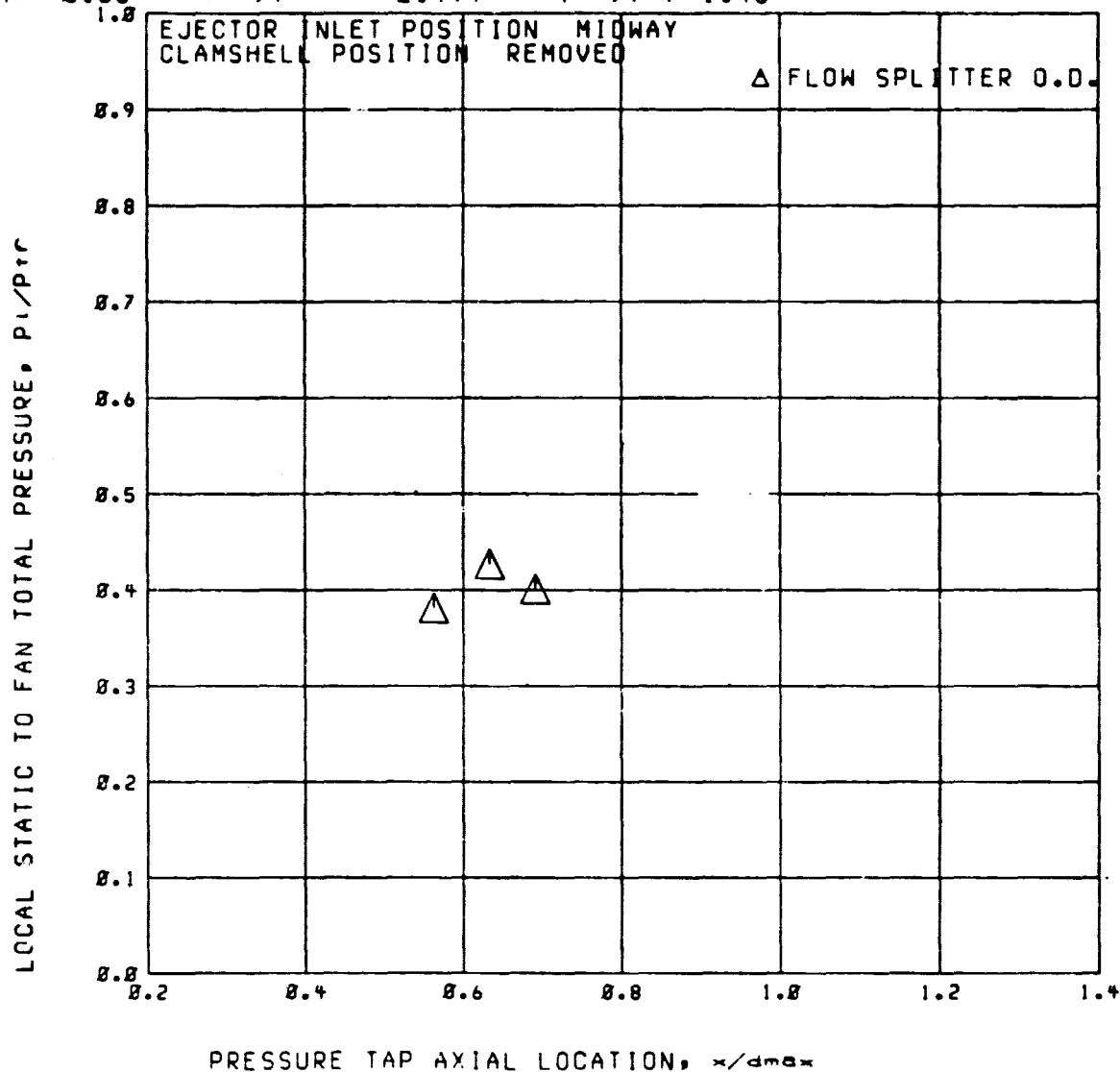
RUN 65

A3

RDG=2889

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_{0e} = 2.494$   $P_{tr}/P_{tp} = 1.46$



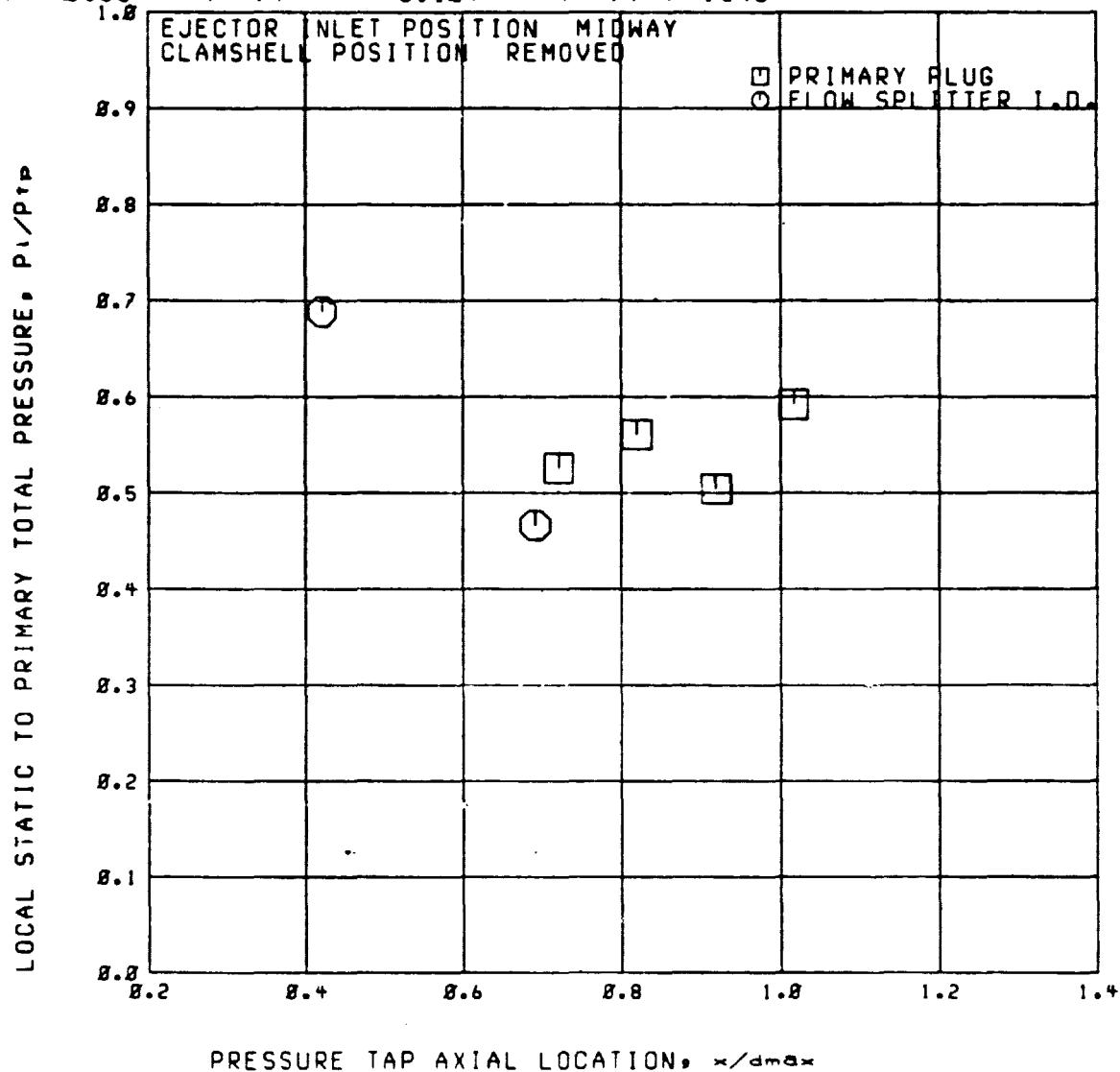
RUN 65

A3

RDG=2898

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$Mo = 0.36$   $P_{tr}/P_o = 3.189$   $P_{tr}/P_{tp} = 1.48$



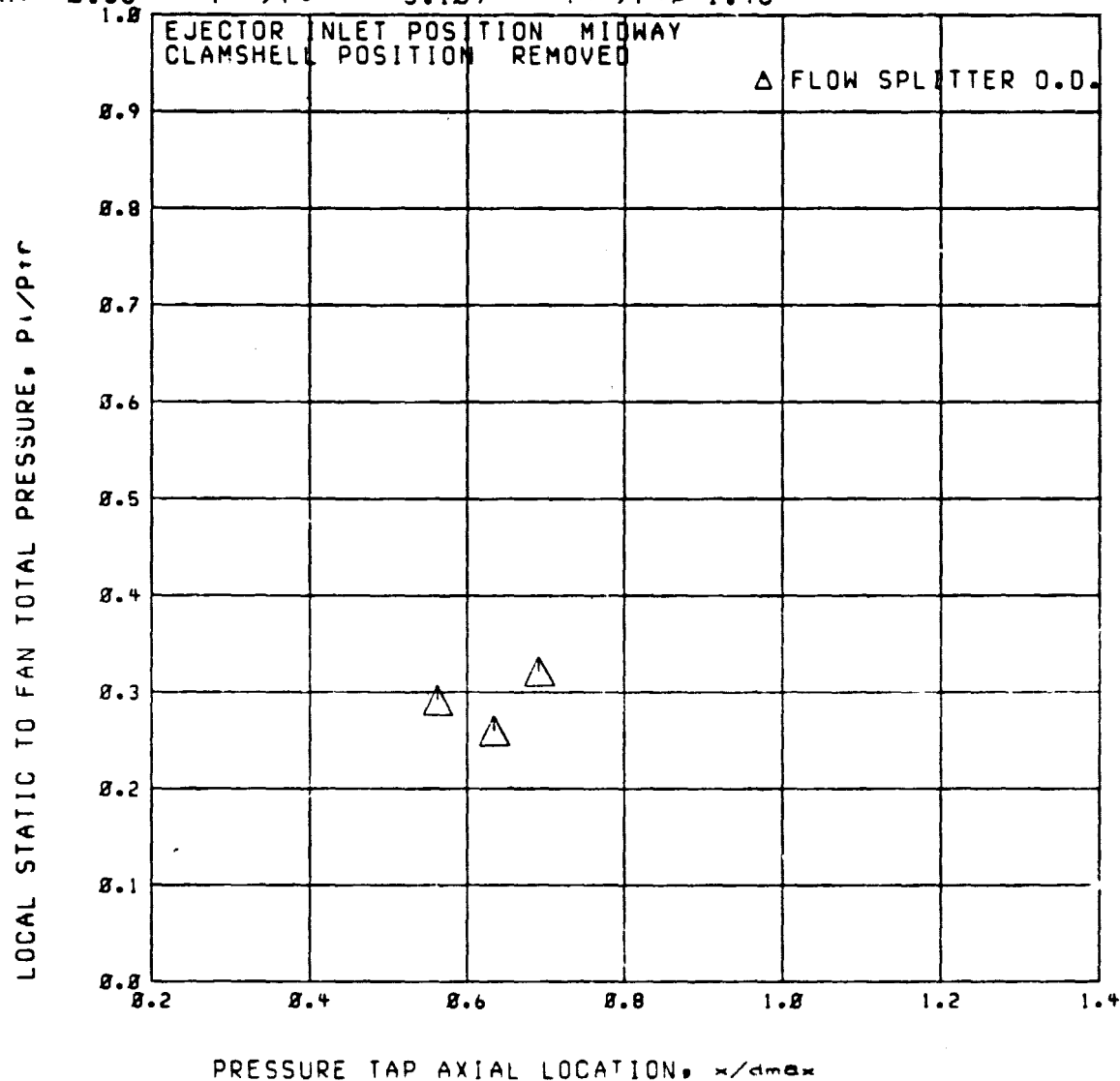
RUN 65

A3

RDG=2890

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_o = 0.36$   $P_{tr}/P_o = 3.109$   $P_{tr}/P_{tp} = 1.48$





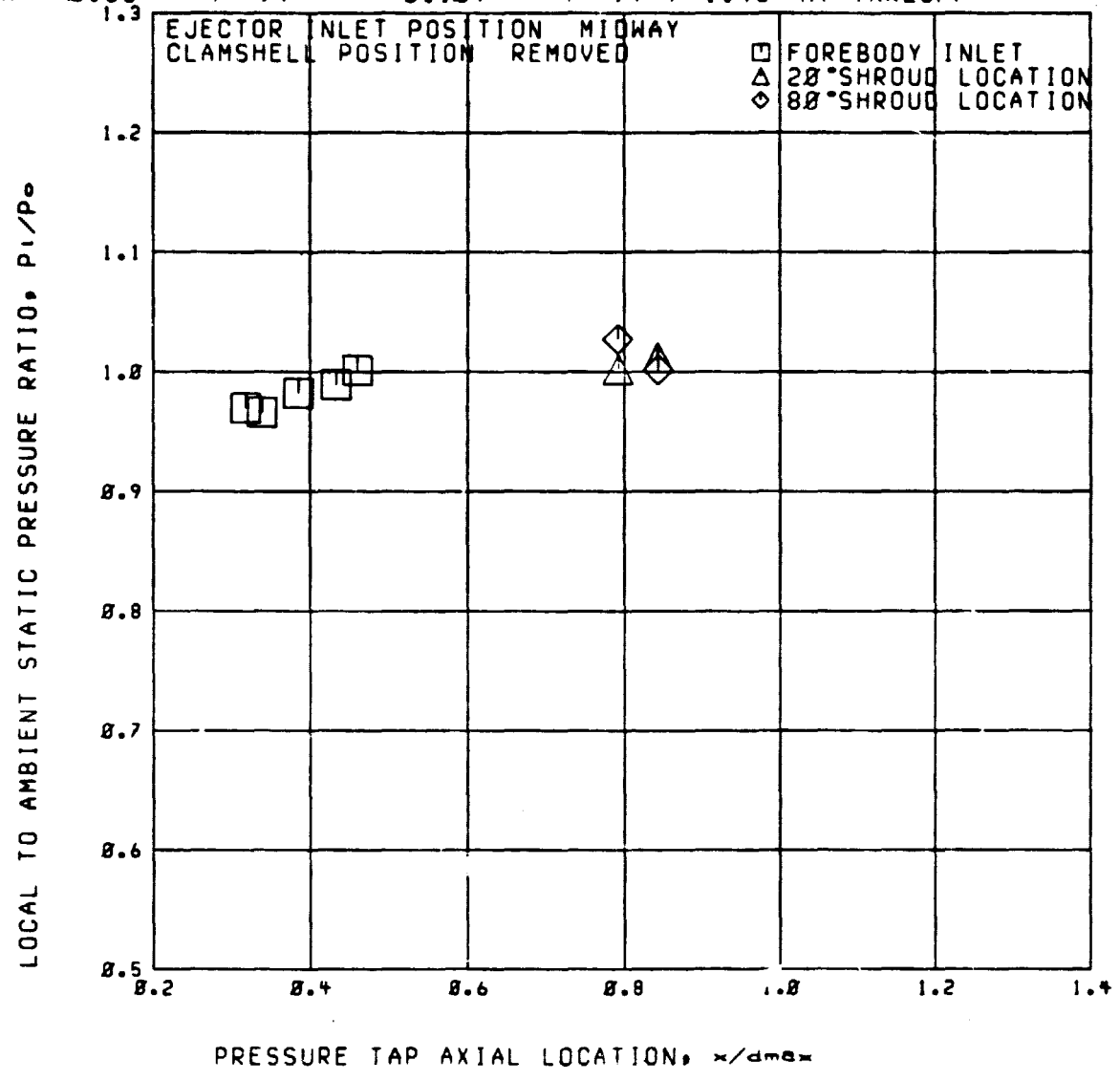
RUN 65

RDG=2898

A3

EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 3.189$   $P_{tr}/P_{tp} = 1.48$  AT TAKEOFF



RUN 65

A3

RDG=2891

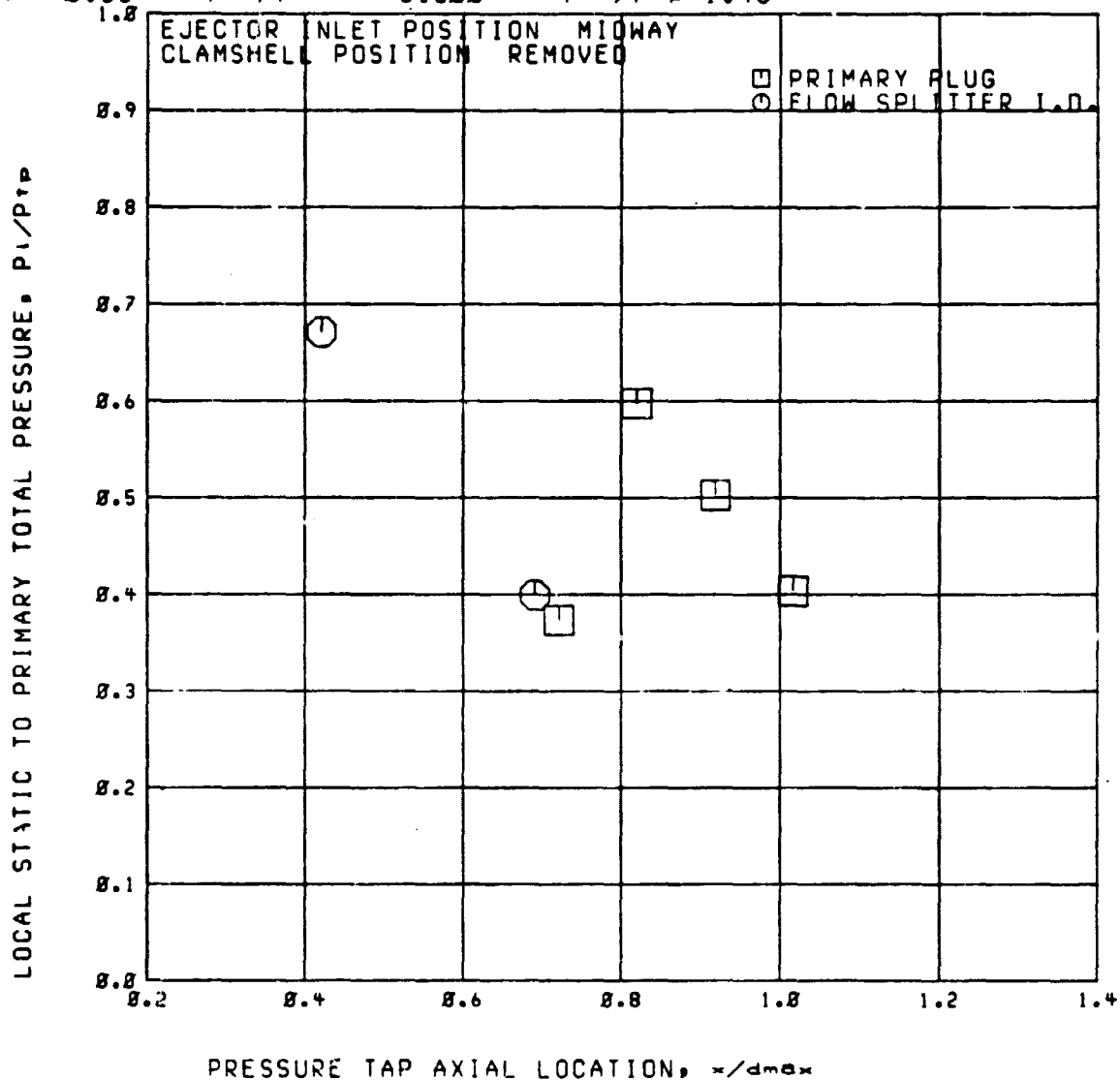
PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$

$P_{tr}/P_0 =$

3.600

$P_{tr}/P_{tp} = 1.46$



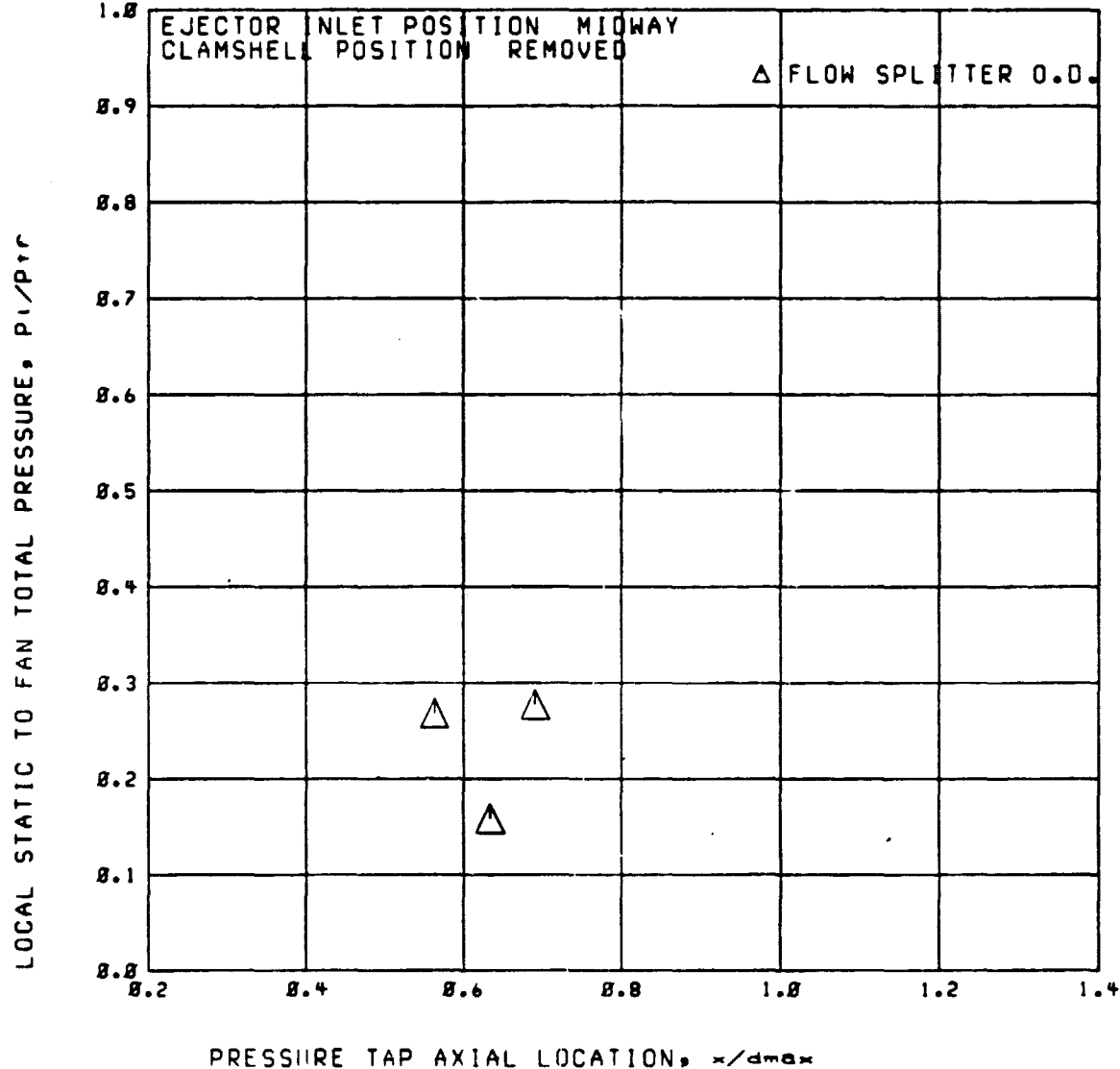
RUN 65

A3

RDG=2891

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$      $P_{tr}/P_0 = 3.600$      $P_{tr}/P_{tp} = 1.46$



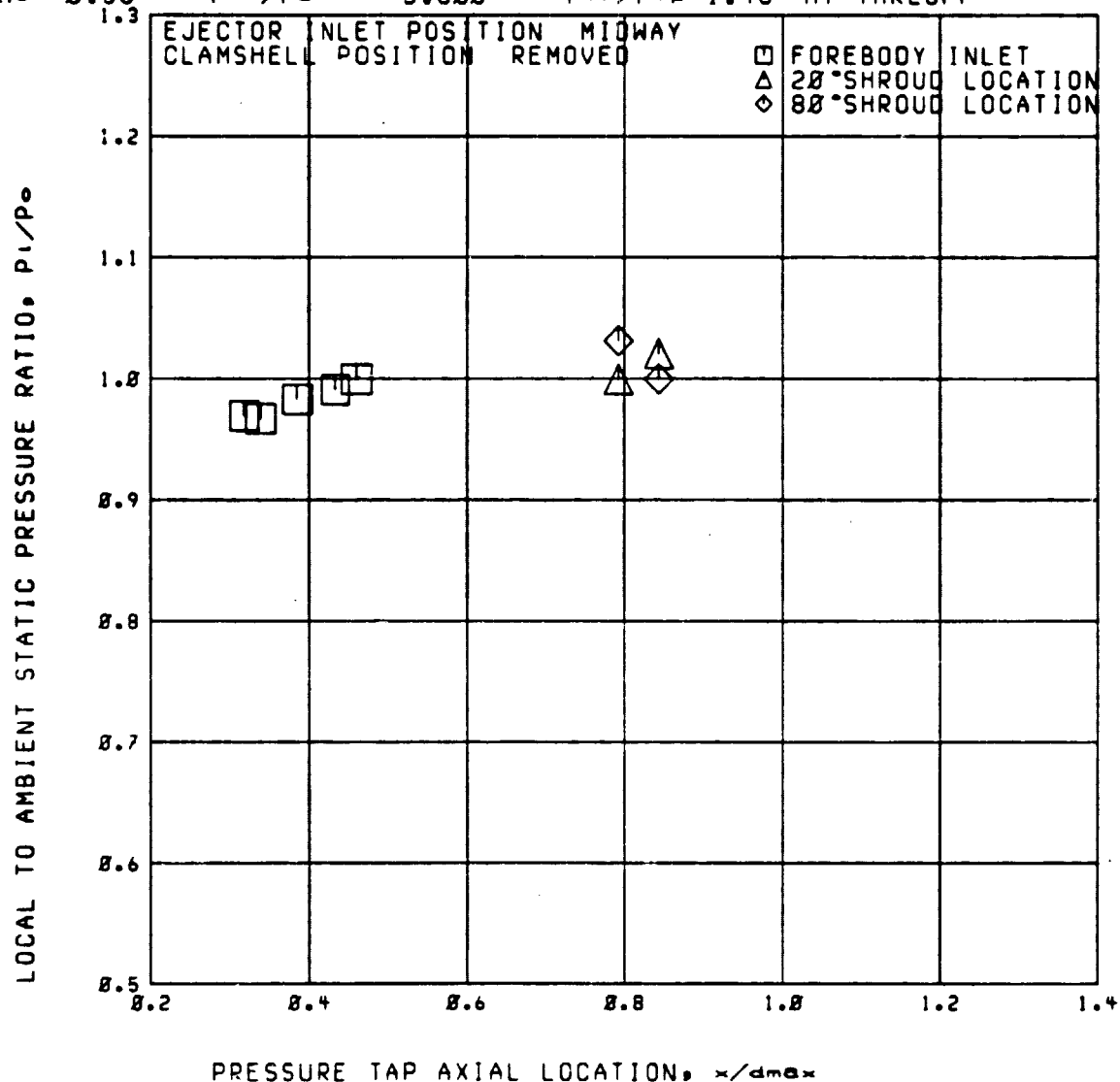
RUN 65

RDG=2891

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$   $P_{ir}/P_0 = 3.600$   $P_{ir}/P_{ip} = 1.46$  AT TAKEOFF



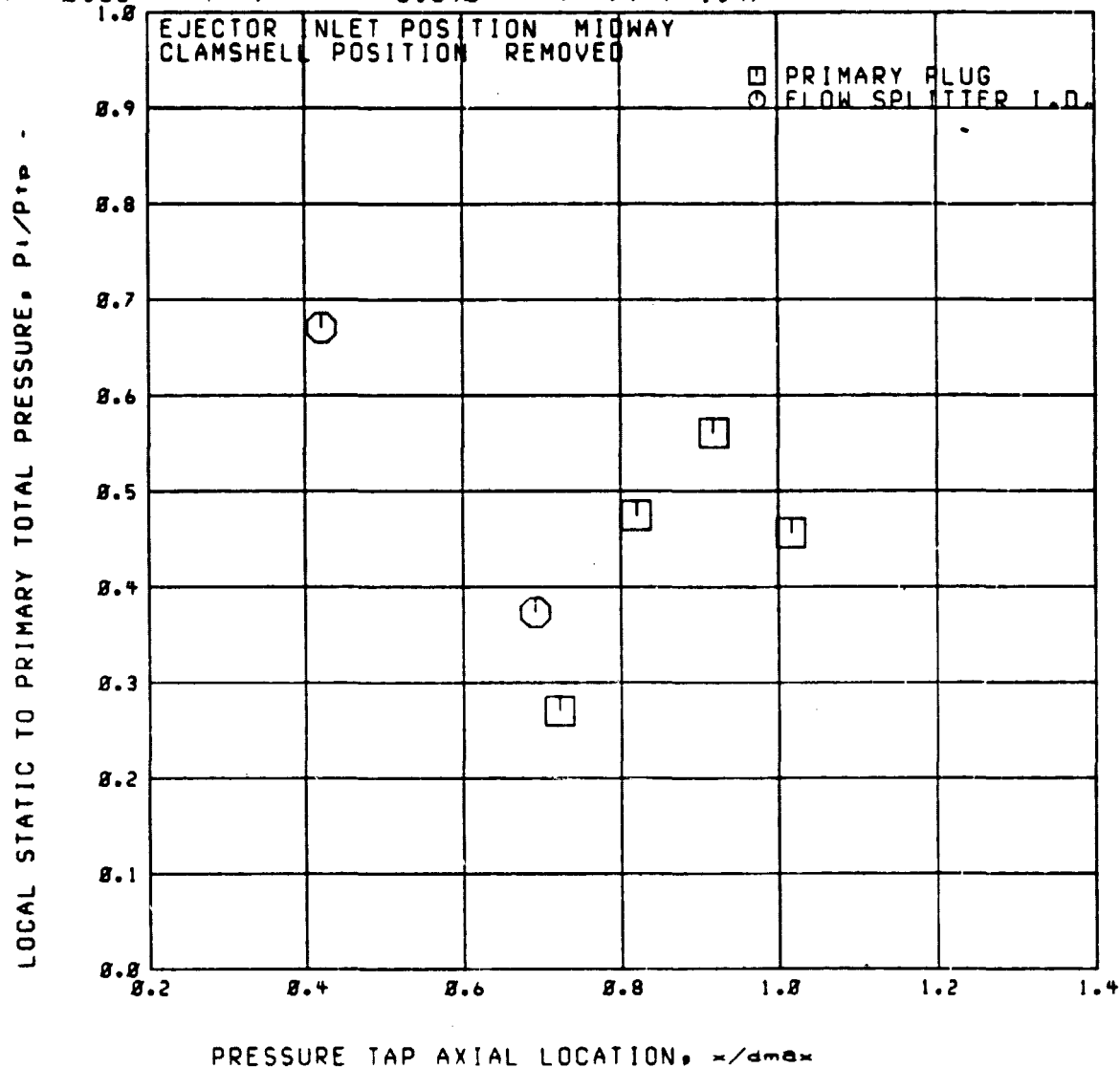
RUN 65

RDG=2892

A3

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 3.898$   $P_{tr}/P_{tp} = 1.47$



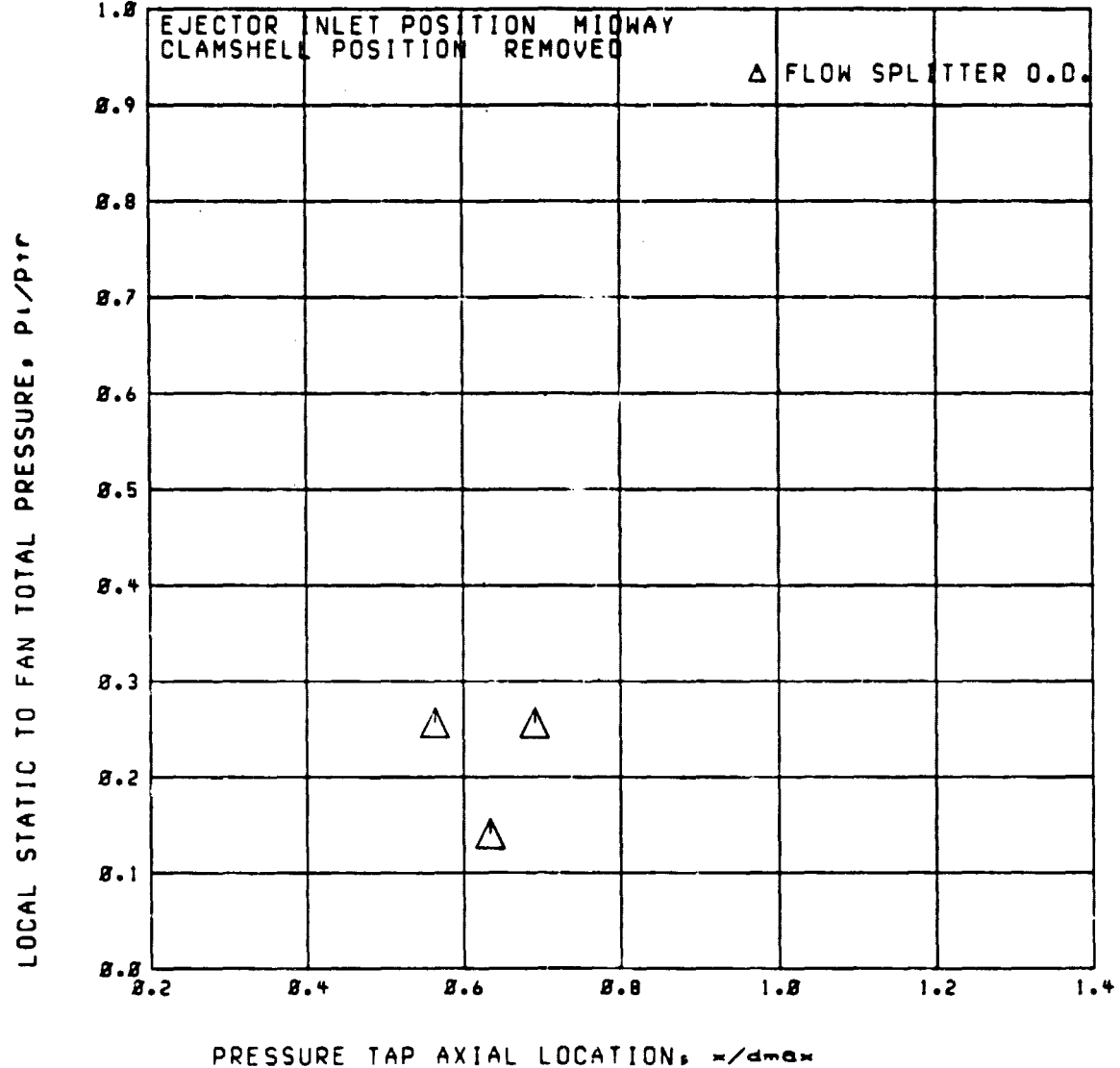
RUN 65

A3

RDG=2892

PLUG AND SPLITTER STATIC PRESSURE DISTRIBUTIONS AT TAKEOFF

$M_0 = 0.36$   $P_{tr}/P_0 = 3.890$   $P_{tr}/P_{tr} = 1.47$



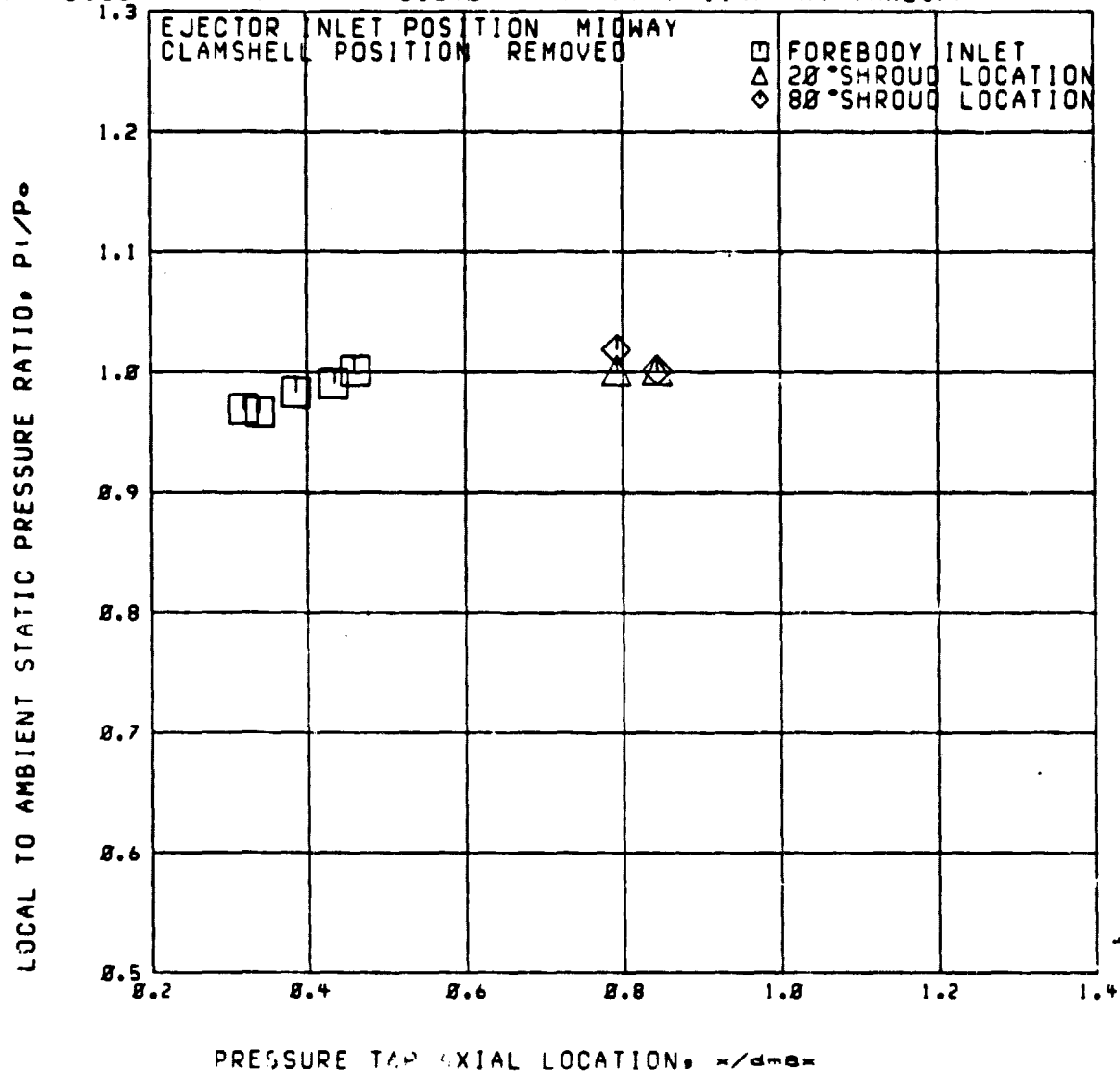
RUN 65

RDG=2892

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_o = 0.36$   $P_{tr}/P_o = 3.890$   $P_{tr}/P_{tp} = 1.47$  AT TAKEOFF



RUN 65

RDG=2889

A3

# EJECTOR INLET AND SHROUD STATIC PRESSURE DISTRIBUTION

$M_0 = 0.36$   $P_{tr}/P_0 = 2.494$   $P_{tr}/P_{tr} = 1.46$  AT TAKEOFF

